



Sustainable Streets Task Force Report

August 13, 2013

August 13, 2013

Dear Mayor, City Commissioners, City Employees and Citizens of Grand Rapids,

We, as your Sustainable Streets Task Force, have been studying the dilemma of how to create Vital Streets in a time of economic challenge. In many respects, we feel like a fish trying to swim upstream in a flood. The City has struggled to provide important services and transform, residents have seen declines in their property values, and businesses have struggled as we have all been impacted by the Great Recession. There will be some people who say “it is what it is” about the condition of our streets. We have learned over the past 18 months that we have no luxuries in terms of time, money, or options. Streets are vital to our shared future success as a community and must be a priority. Delay in addressing this issue is not an option.

If we want Grand Rapids to remain the great city we know it to be and to have a prosperous future, our infrastructure must be able to support the various needs of neighborhoods, businesses, residents and visitors. Our streets have daily impacts on our lives, jobs, economy and families. Decisions made by businesses and homeowners on where to locate or relocate are swayed by the condition of the public infrastructure they see. Property values are impacted by negative “curb appeal” when street infrastructure is crumbling and car repair bills mount with every pothole.

The City’s street system is a vital asset of more than \$1 billion in value. We know we can extend the useful life of this investment through a planned approach utilizing asset management. And, by designing in all the appropriate features for a particular street, we also create value - value that is shared by everyone in Grand Rapids and throughout the region. We must begin to take the necessary action that preserves this investment or else our streets will deteriorate from 60% in poor condition today to nearly 90% poor in 6 years if no new investment occurs.

In 2011, the City’s Transformation Advisors recommended that our community tackle tough issues, such as the sustainability of our streets, “with data, discussion, and deliberate decision-making.” The Sustainable Streets Task Force has done just that. We could not agree more that “Our community cannot afford to debate for years the best approach to resolve our fiscal challenges or else our problems will only grow larger.” To date, State leaders have not been willing, or able, to lead us to a viable transportation funding solution. Local action is required.

It is clear to us that the City’s operational transformation will be complete by June 30, 2015 and that the temporary income tax increase will no longer be needed for that purpose. For the same investment we are already making, we can transform our street system from 60% poor to 70% in good repair over the next 15 years, improve our sidewalk system and eliminate property owners’ responsibility for the repair or replacement of sidewalks in front of their parcels. The best near-term option is ask voters to extend the current City Income Tax rate beyond June 30, 2015, and to invest those resources to achieve vital street and sidewalks outcomes. A special election held in May, 2014, would allow the time needed to inform voters prior to the election and for income tax forms to be amended (the cost of a special election is less than the cost of an out-of-cycle adjustment to income tax rates). We simply cannot afford to wait for others to fix our problems.

Respectfully Submitted,
The Sustainable Streets Task Force

Table of Contents

Executive Summary	3
------------------------------------	----------

Sustainable Streets Task Force . .	7
---	----------

Who We Are	7
Our Charge	8
Our Process	8
Our Predecessors	11

Basis	15
------------------------	-----------

Our Vision.	15
Our Desired Outcomes. . .	16
Our Guiding Principles. . .	16

Current State	23
--------------------------------	-----------

Investment	23
Condition	27

Considerations for Investment . .	33
--	-----------

Balancing Condition with Investment.	33
Preferred Condition Goal	33
Preferred Local Investment Option.	34

State Investment Options	35
Other Financing Options. . .	35
Asset Management.	36
Sidewalks.	36
Vital Streets	38

Recommendations of the Sustainable Streets Task Force. .	41
---	-----------

Conclusion	50
-----------------------------	-----------

Appendix A – Definitions	A-1
---	------------

Appendix B - 21st Century Infrastructure Report - Executive Study	A-3
---	------------

Appendix C - Transformation Advisors Report - Executive Study	A-6
--	------------

Appendix D - Condition Examples . .	A-8
--	------------

Appendix E – Review of Target and Investment Options	A-13
---	-------------

Appendix F – Sidewalk A3.	A-20
--	-------------

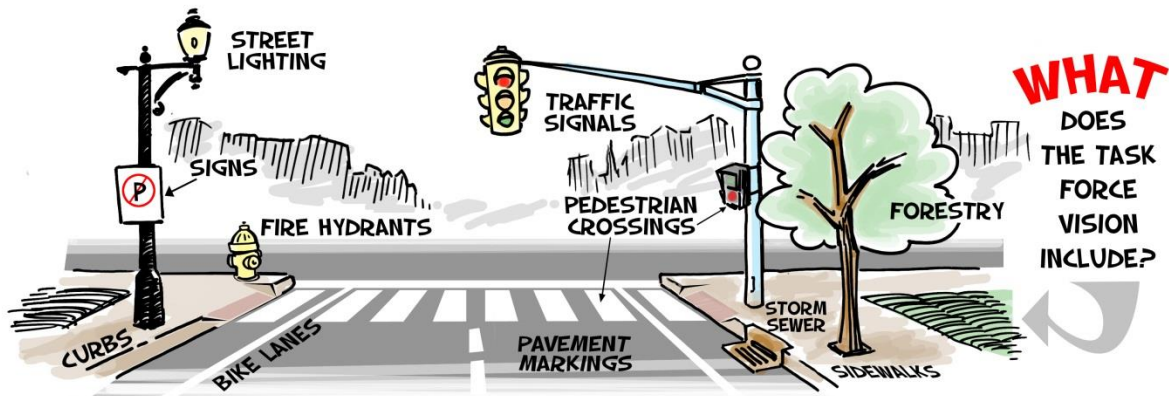
Appendix G – References	A-21
--	-------------

Special thanks to the city staff dedicated for this work effort:

Eric DeLong (*Deputy City Manager*)
Nancy Meyer (*Administrative Analyst I*)
Rick DeVries (*Assistant City Engineer*)
Chris Zull (*Traffic Safety Manager – Lighting, Signals & Signs*)
Suzanne Schulz (*Design, Development & Community Engagement*)
James Hurt (*Public Services Director*)
Victor Rose (*Public Services Manager*)
Carrie Rivette (*Project Engineer – Stormwater*)
Mark De Clercq (*City Engineer*)
Scott Buhrer (*Chief Financial Officer*)
Michael Moore (*Graphic Illustrator*)
Alicia Bernt (*Administrative Secretary*)
Vaughn Umphrey (*Public Services, retired*)

Executive Summary

This report was prepared by the Sustainable Streets Task Force. We are a citizen's task force representing diverse community interests created by the Grand Rapids City Commission, to provide recommendations about the crisis currently facing our public streets. "Streets" were central to our evaluation; however, as we explored the community's vision, the scope of our work expanded to include critical infrastructure assets within our rights-of-way, particularly sidewalks and green infrastructure. A "sustainable" street is one that is not only in good or fair condition at a reasonable cost, but one that serves a variety of critical functions. Our streets will fulfill a vital role in meeting the economic, social and environmental needs of our city.



Problem

On February 22, 2011 the City's [Transformation Advisors' final report](#) strongly urged city leaders to focus on four key areas to position Grand Rapids for a successful future: address the structural deficit; reform public safety; invest in streets and infrastructure; and focus on quality of life. Investment in streets and infrastructure has been a significant issue for more than a decade. The 21st Century Infrastructure Task Force provided recommendations in 2002 regarding the amount of investment needed to restore and maintain our streets. Their recommendations relied upon others taking action first, before significant local investment was requested of the voters. Those pre-conditions were never met, so as a result, no progress was made. Grand Rapids' streets deteriorated from approximately 60% in Fair to Good condition in 2002 to over 60% in Poor condition today.

Purpose

The Task Force was charged with identifying solutions to Grand Rapids' funding and maintenance crisis for public streets. Our work to achieve a sustainable street system included:

- Review and update the work of the [21st Century Infrastructure Task Force](#);
- Create a future vision for the role of our streets;
- Determine desirable street condition and asset management approaches;
- Identify alternatives and recommend options for future investment; and
- Listen to community interests.

Process

Our charge began in February, 2012 with meetings twice monthly. We worked diligently with city staff to understand the current funding structure for 588 miles of public streets, how levels of condition are determined, and what realistic approaches might be used to develop an implementable solution. Nearly a dozen scenarios on street condition and levels of investment were evaluated. A great deal of discussion ensued. We focused on pragmatic approaches that would achieve our vision while also balancing the community's economic reality. Presentations in each City Ward, stakeholder meetings, and periodic updates to the City Commission were provided to "check in" with the community for accountability and to gain insight.

Findings

Three illustrative summaries depicting the Vision, Condition, and Investment findings and recommendations have been provided at the end of this Executive Summary. A number of findings that were made during the task force process informed our recommendations. The following summarizes notable concepts.

- ***Businesses and residents understand that poor public infrastructure has real costs.*** We heard complaints about car repairs, frustrated statements from people who take pride in their homes - but their streets look abandoned, stories from real estate and economic development professionals that purposely choose routes to avoid the worst streets when trying to show the "best" of Grand Rapids to prospective new residents and businesses.
- ***Good design is important.*** Designing public streets with appropriate features, such as bike lanes, ADA curb cuts, sidewalks, and low impact development, in the appropriate places plays a significant role in meeting desired community outcomes. The amount of acreage devoted to our street right-of-way is three times larger than our park acreage and is deserving of thoughtful design for all people in our city.
- ***Immediate action is required to bring our streets back to acceptable conditions.*** We have bad streets now and they will only get worse in the future. The longer we wait, the more expensive the fix. If we are to be responsible stewards of our city then action is needed now.
- ***Comprehensive asset management is a necessity, not an option.*** Repair or replacement of infrastructure without managing how it is done on a systematic basis with adequate resources will not provide desired results. Early investments in preventive maintenance and rehabilitation in order to save those streets that could be in Good or Fair condition, whereas other streets must be reconstructed, is desperately needed. The current Point-of-sale sidewalk program, however, provides an ineffective shot-gun approach and is need of an overhaul.



- ***Investing now will transform our city.*** Our vision is about moving people – to shops, jobs, education, health care, recreation and places of worship - not just vehicles. Vital streets serve everyone, create value of place and protect the natural resources our city. Foundations for our vision are present in the City’s [Master Plan](#), [Green Grand Rapids](#), the [Sustainability Plan](#) and in the [report of the Transformation Advisors](#).
- ***Grand Rapids must continue to take charge of its own destiny.*** State and Federal agencies have a transportation funding role and have been partners in the past. While there is agreement that increased investment in transportation is needed, there is no agreement on a method to provide that funding. We can’t wait any longer to see what others will do. Action is required now in order to avoid further deterioration of our streets and ensure Grand Rapids remains a vital city.
- ***We must think long-term.*** Available funding mechanisms for public streets at the local level are very limited. Structural solutions are necessary to create viable transportation funding options for our city. We must continue to advocate for long-term change while using the tools available to us now to solve our immediate and pressing problem.
- ***Grand Rapidians are ready to invest in their streets.*** Task Force members were encouraged in community conversations to provide a reasonable solution that would be affordable yet provide enough investment that would make a difference. Citizens shared a desire to see work on city streets start sooner than later.

Recommendations

The specific recommendations of the Sustainable Streets Task Force are intended to preserve and improve city streets and rights-of-way as a vital asset of our city. Grand Rapids’ ability to achieve desired economic, environmental, and quality of life outcomes are dependent upon how fully these recommendations are implemented. Additional detail is provided in the full report.

1. Maintain 70% of streets in a “State of Good Repair” (either in Good or Fair condition) within the next 15 years.
2. Invest \$22 million per year in streets, sidewalks and public rights-of-way; with approximately \$3.4 million from current Gas Tax Revenue, \$3 million from grants; \$9 million from local sources and approximately \$6 million from new State monies.
3. Provide the opportunity for citizens to choose to continue the current income tax rate beyond June 30, 2015, for an additional 15 years and direct that 0.2% of funds be used only to invest in our street system, including sidewalks.
4. Advocate to both State and Federal legislators for increased transportation investments at the local level.



5. Ensure streets and sidewalks are accessible for everyone.
6. Investment in sidewalk repair and replacement should be the responsibility of the City.
7. Amend the City Charter to remove the provision regarding property owner responsibility for repair and replacement of sidewalk fronting their property; sunset the current Point-of-Sale Program.
8. Establish a citizen's oversight group to monitor performance of street investments and progress toward Vital Streets; report to taxpayers on outcomes. Tax revenue raised through the continued 0.2% income tax should be deposited in a separate Sustainable Street Fund for maximum transparency.
9. Continue research and implementation of new methods for street maintenance and construction to ensure that best practices are being followed. Research and implement new methods of investment as they become available and are found to be acceptable and reliable funding sources.
10. Use a comprehensive Asset Management Program to manage street and sidewalk infrastructure investments.
11. Evaluate all streets recommended for improvement for the suitability of green infrastructure to manage stormwater. Green infrastructure should be implemented where site conditions allow as outlined in the City's Technical Reference Manual.
12. Partner, whenever practically feasible, with other agencies, non-profits and community groups to advance the vision and desired outcomes of the Sustainable Streets Task Force.

Conclusion

It is critical that action be taken immediately to stop the deterioration of our streets and reverse years of disinvestment. Asset management requires resources. We have learned from past mistakes that our community must be responsible stewards of our infrastructure and that we need to try to find a local solution first. Our Task Force believes that the most reasonable and equitable option would be to provide citizens with the opportunity to extend the current City Income Tax rate beyond June 30, 2015. Collections for additional investment in streets and rights-of-way would commence at that time. An amendment to the City Charter to remove owner responsibility for the repair of sidewalks should also be placed on the ballot.

Enacting these changes will take months; an election would need to be scheduled in 2014. Information will need to be provided to voters and additional community discussions must occur. A special election held in May, 2014, would allow this needed time while still providing ample notice to prepare income tax forms for amendment following the election. (Note: The cost of a special election is less than the cost of an out-of-cycle adjustment to income tax rates.)

Sustainable Streets Task Force

Who We Are

The Grand Rapids City Commission appointed 35 business, neighborhood and community leaders to the Sustainable Streets Task Force in early 2012.

Represented stakeholder groups included:

- 21st Century Infrastructure Task Force
- Disability Advocates of Kent County
- Transformation Advisors
- Businesses
- Neighborhoods
- Grand Rapids Bicycle Coalition
- Grand Rapids Area Chamber of Commerce
- Grand Rapids City Commission
- State of Michigan Office of Urban Initiatives
- MI Dept. of Transportation
- Grand Valley Metro Council
- ITP – The RAPID
- Kent County Road Commission
- West Michigan Hispanic Chamber of Commerce
- West Michigan Environmental Action Council (WMEAC)

Sustainable Streets Task Force Membership

A complete listing of Task Force members is provided below:

City Commissioner Ruth Kelly

City Commissioner Elias Lumpkins

Rick Baker/Joshua Lunger (*GR Area Chamber of Commerce*)

Johnny Brann, Jr. (*Brann's Steakhouse and Transformation Advisor*)

David Bulkowski/Kim Frost (*Disability Advocates of Kent County*)

Steven Elliott (*Materials Testing Consultants and 21st Century Task Force*)

Cherie Giles (*Neighborhood Advocate*)

Jack Hoffman (*Attorney, Kuiper Orlebeke PC and 21st Century Task Force*)

Harvey Hollins/Erika Rosebrook (*MI Office of Urban Initiatives*)

Rachel Hood/Elaine Sterrett Isely (*West Michigan Environmental Action Council*)

Cindy Irving (*Fishbeck, Thompson, Carr & Huber*)

Johannah Jelks (*Neighborhood Advocate*)

Mary Kenyon (*Neighborhood Advocate*)

Erick Kind (*MI Dept. of Transportation*)

Joshua Leffingwell (*The Salon, bicycle & neighborhood advocate*)

Theresa Petko (*URS Corporation and 21st Century Task Force*)

Paul Plotkowski (*Grand Valley State University and 21st Century Task Force*)

Father Mark Przybysz (*Catholic Diocese of Grand Rapids*)

Christopher Reader (*Green Grand Rapids co-chair*)

Milt Rohwer (*Transformation Advisor and 21st Century Task Force*)

Darell Ross, II (*LINC-Community Revitalization Inc.*)

Carlos Sanchez (*previously of Hispanic Chamber of Commerce*)

Scott Steiner (*Attorney, Rhoades McKee PC*)

Rick Treur (*Calvin College and Planning Commission*)

Peter Varga (*The RAPID*)

Steve Warren (*Kent County Road Commission*)

John Weiss (*Grand Valley Metro Council*)

Deborah Johnson Wood (*Alpha2Omega Writing Services*)

Bob Zylstra (*Feyen Zylstra, LLC*)

Our Charge

The Sustainable Streets Task Force was charged with identifying solutions to Grand Rapids' streets funding and maintenance crisis. Our work to achieve a sustainable street system included:

- Review and update the work of the 21st Century Infrastructure Task Force;
- Create a future vision for the role of our streets;
- Determine desirable street condition and asset management approaches;
- Identify alternatives and recommend options for future investment; and
- Listen to community interests.

Process

Our charge began in February, 2012 with meetings twice monthly. We worked diligently with city staff to understand the current funding structure for 589 miles of public streets and other infrastructure, how levels of condition are determined, and what realistic approaches might be used to develop an implementable solution. Nearly a dozen scenarios on street condition and levels of investment were evaluated. A great deal of discussion ensued. We focused on pragmatic approaches that would achieve our vision while also balancing the community's economic reality.

In May 2012, we presented our findings on the *State of the Streets* to the community. Three community meetings (one held in each of the 3 city wards) and sessions with the Transportation and Legislative Committees of the Grand Rapids Area Chamber of Commerce followed to share this information. In February, 2013, we presented our preliminary findings and recommendations to the City Commission. Eight focus group meetings and additional presentations were then held throughout the community to gather feedback.

Community engagement was an important part of finalizing our recommendations on investment and investment outcomes. We felt that it was important to “check in” periodically with the community for accountability and to gain insight. These meetings reached a total audience of well over 150 residents or business owners.

Public Assets in the Right-of-Way

Streets:

Principal Arterials	35 miles
Minor Arterials	74 miles
Collectors	48 miles
Local/Neighborhood	<u>432 miles</u>
Total All Streets	589 miles

Other Considerations:

Bridges	22 miles
Alleys	63.59 miles
Brick Streets	4.33 miles
Cobblestone St.	1/8 mile
Sidewalks	1,134 miles
Sidewalk Ramps	25,000+
Intersections	4,800
Street Trees	62,000+
Street Lights	20,000+
Pavement Markings	
Signs	



Information on our work and our presentations were made available to the community on the City's website as well as on the Grand Rapids Sustainable Streets Task Force Facebook page. Visitors to these sites were encouraged to provide us with their comments and ideas.

Task Force members have testified before House and Senate Legislative Committees and

participated in the Rebuild our Region Transportation Summit sponsored by Grand Valley Metropolitan Council and the Grand Rapids Area Chamber of Commerce.

Members of the Task Force and City staff also participated in local radio and cable television shows to provide information on the condition of our streets, the work of the Task Force, and preliminary recommendations. We have learned that our businesses and citizens are ready to invest in a quality transportation system. They are tired of poor streets and understand the need to take immediate action to bring our streets back to an acceptable condition.

City Commission Presentations

- [5/22/12 State of the Streets Report](#) presented to City Commission by SSTF
- [2/12/13 Vital Streets – A Vital Component of a Vibrant City](#) – Interim Report of the SSTF presented to the City Commission

Community Engagement

- Community Meetings held:
 - 6/21/12 – Harrison Park School
 - 6/25/12 – Kroc Center
 - 6/26/12 – Congress Elementary
- [7/26/12 Presentation to Transportation Committee of the Chamber of Commerce](#)
- 3/15/13 Presentation to West MI Regional Planning Commission
- [4/8/13 GVMC/GRACC “Rebuild our Region” Transportation Summit](#)
- [10/30/12 State Senate Transportation Task Force](#)
- Stakeholder Focus Group Meetings held:
 - 5/06/13 - Monday Group (minority and majority contractors organization)
 - 6/06/13 - Area Agency on Aging
 - 6/19/13 - Neighborhood Business Alliance
 - 6/19/13 - Hispanic Center of West Michigan
 - 6/20/13 - Disability Advocates
 - 6/20/13 - Rapid Growth – *Not Your Average Speaker Series*



6/25/13 - New Hope Baptist Church – Community Meeting
6/27/13 - Harrison Park School – Community Meeting
7/12/13 – Monroe North Business Association
8/06/13 – Kiwanis Club

- Transportation Town Hall Meeting:
6/10/13 – Grand Rapids Town Hall meeting organized by Rep. Rob VerHeulen
- Testimony to Michigan State Legislature: [Grand Rapids and Michigan's Transportation System](#) | by Eric R. DeLong, City of Grand Rapids Deputy City Manager | January, 2013
- Radio & Cable Channel Appearances:
2/14/13 [Hispanic Radio Station Interview](#)
5/21/13 [Focus on Issues](#) with Sister Barbara Hansen (GR Community Media Ctr)
6/05/13 [Bliss for GR](#) with Commissioner Rosalynn Bliss (GRCMC)
- Sustainable Streets Task Force [Facebook Page](#) – view the presentation used at the 2013 Focus Group Meetings



Sustainable Streets Task Force “In the News”

- [Grand Rapids streets in 'crisis' prompt call for millage and Michigan gas tax hike](#) M-Live, by [Matt Vande Bunte](#) | [mvandebu@mlive.com](#) | May 22, 2012
- [Task force: Most Grand Rapids streets rated "poor"](#) WZZM 13 | by [Matt Campbell](#), Executive Producer | May 22, 2012
- [Report: 61% of GR streets labeled 'poor'](#)-Could cost more than \$11 million per year to fix WOOD TV-8 | May 22, 2012
- [Leaders in pothole-ridden Grand Rapids anxious for Gov. Rick Snyder's roads funding plan](#) M-Live | by [Zane McMillin](#) | [zmcmilli@mlive.com](#) | January 16, 2013
- [G-Sync: Taking It to the Streets](#) Rapid Growth | by Tommy Allen, Lifestyle Editor | February 07, 2013
- [GR roads task force: Invest \\$9M/year](#) - 63% of Grand Rapids roads rated 'poor' WOOD TV-8 | February 12, 2013
- ['Citizens of Grand Rapids, we must invest in our streets, and we must do it now'](#) (Guest column) M-Live | by [Dave Murray](#) | [dmurray@mlive.com](#) | February 22, 2013
- [Grand Rapids 'may very well need additional resources'](#) M-Live | by [Matt Vande Bunte](#) | [mvandebu@mlive.com](#) | February 22, 2013
- [Sustainable Streets?](#) Rapid Growth | Thursday, June 06, 2013

Our Predecessors: The 21st Century Infrastructure Task Force

In 2001, another City Commission-appointed task force, the 21st Century Infrastructure Task Force, was charged with developing recommendations to achieve a comprehensive street repair and reconstruction program that would ensure high quality streets requiring only routine, systematic maintenance. In 2002, the 21st Century Infrastructure Task Force recommended that \$12.5 million dollars should be invested annually to maintain and upgrade Grand Rapids' street system in order to achieve that goal.

A total of \$8 million was invested in streets from the City's General Operating Fund (GOF) in FY 2002. This was the largest annual investment in streets made over this past decade, but only 2/3rds of what was needed. GOF contributions were reduced to roughly one-quarter of the resources required to maintain and construct a quality system in FY11 (~\$3 million). Today, the City's GOF investment in streets has dropped to zero. Drastic reductions in State revenue sharing payments, declining property tax and income tax receipts, and other economic factors have directly impacted our ability to maintain hundreds of millions of dollars in infrastructure. The City now receives approximately \$11 million less in State revenue sharing annually while costs continue to rise.



21st Century Infrastructure Task Force recommendations for investment of \$12.5 million per year were not achieved because of General Operating Fund (GOF) struggles, declining gas tax payments to the City, reduced state revenue sharing, no new sources of investment, and worsening Federal, State and local economic conditions.

The Task Force, at that time, felt the City had met many necessary conditions to seek more resources -- most importantly, that the City's "house was in order." Still, they wanted every effort to be made to seek other, broad-based resources before seeking increases from local resources. The key conditions set by the 21st Century Infrastructure Task Force before additional resources were to be requested through a proposed income tax or millage included:

1. Initiate an increase of GOF subsidy to 25% of Gas & Weight Tax revenues;
2. Make a significant and good faith effort to establish a county-wide surcharge; and,
3. If still needed, go to voters as a last resort.

The first two precursors, before going to voters, never came to pass. The State has not increased its investment in streets and enabling legislation for a county-wide registration fee could not be introduced or passed through the legislature. New local resources were never requested from voters. As a result, as state and local investment in streets has continued to decline, the City's ability to properly maintain its important assets has been substantially impaired; resulting in streets that are in poor condition and an incomplete sidewalk network.

The Executive Summary of the 21st Century Infrastructure Task Force is included as Appendix B. The full report may be accessed [here](#).

Transformation Advisors

The Transformation Advisors, a collective of insightful community leaders, were called upon in March of 2010 to provide guidance as the City worked its way through very challenging economic times. Members were selected by the Mayor and Commissioners as persons who demonstrated a deep passion for their community and a commitment to ensuring a bright future for Grand Rapids. The intent was to establish a forum where the wisdom and counsel of the group would help define and drive transformative change.

On February 22, 2011 the City's [Transformation Advisors' final report](#) strongly urged city leaders to focus on four key areas to position Grand Rapids for a successful future:

- address the structural deficit;
- reform public safety;
- invest in streets and infrastructure; and
- focus on quality of life.

"For many communities, street beautification has been viewed as an unnecessary expense. But as cities compete for investment, new residents, and tourists, there can be a substantial return on design dollars. . . . And indeed, cities that have invested in their public realm are seeing improved property values and increased retail sales."

[Why Street Design Matters - www.planetizen.com](#)

The Advisors stated: *"Deferred investment and disinvestment in our physical infrastructure cannot continue. Revenues must be increased to pay for maintenance and reconstruction of our community's streets, alleys, and bridges. The State of Michigan should be encouraged to increase the state gas tax or, failing that, a dedicated local tax proposal should be examined to ensure proper maintenance and management to avoid exponentially higher replacement costs. Following a Complete Streets strategy so that all citizens have access to meet daily needs by bike, car, walking, or transit is important. Neighborhood infrastructure assets, such as housing stock and streetscapes, are the foundation of our community. Investment is necessary to prevent deterioration of our infrastructure, encourage economic development activities, and position our citizens and city for the future."*

In regard to streets, it was recommended that the City:

1. Support the recommendations of the 21st Century Infrastructure Task Force and consider updating the Task Force report to more accurately reflect the current state of streets funding, rising materials costs, and maintenance and construction needs.
2. Identify the financial resources to improve the condition of Grand Rapids' streets; if not through state action that re-evaluates the 1997 State Gas Tax, then through a targeted local tax proposal.
3. Focus on "Complete Streets" design when making future investments based upon Green Grand Rapids recommendations.

The City's [Master Plan](#), [Green Grand Rapids Report](#), and [Sustainability Plan](#) were noted as the guiding documents for decision-making as the city transforms. It was felt that the hundreds of meetings with thousands of city residents and stakeholders which contributed to the creation of these documents should be honored and respected.

It was based on these recommendations that the Mayor and City Commission appointed the Sustainable Streets Task Force as a means of identifying solutions to the City's street crisis. A copy of the Executive Summary of the Transformation Advisors final report is included in Appendix C. The full report may be accessed [here](#).

The City's Transformation Journey

The Mayor and City Commission sought to implement the recommendations of the Transformation Advisors by appointing us, the Sustainable Streets Task Force, in February of 2012. We have tracked with the work of the City's Transformation Investment Plan¹ and find that significant progress has been made in eliminating the city organization's structural deficit. This important work sets the stage to create a sustainable asset management strategy for our community's infrastructure, including our streets. Our work has been to assess the current condition of streets and other infrastructure within the public rights-of-way to determine the level of investment required to maintain and/or improve these important public assets. This effort is the next logical step in our City's transformation journey.

In three short years, the City has worked its way from a series of General Operating Fund (GOF) operating deficits to a point where in Fiscal Year 2013, the first deposit of operating surpluses since FY2005 was made to the Budget Stabilization Fund. The five-year GOF budget projection indicates that the City Commission and City Manager will be able to continue to build both the

¹ The essence of the Transformation Investment Plan is to create the quality of life outcomes required to support a thriving regional urban center within available resources. Each department has undergone a thorough examination in order to determine how to simultaneously meet expenditure and outcome targets.

Budget Stabilization Fund and GOF Fund Balance to the targets set by fiscal policy. This has been accomplished by reducing total compensation for all staff members by 12.5% over two contracts, achieving GOF operational savings that will approach 10% by Fiscal Year 2015, and benefiting from improved economic performance.

Commitments made when voters approved the temporary income tax have been honored. The City's Transformation Investment Plan Dashboard includes a [Transformation Fund Overview](#), a report on investments made from the Transformation Fund. Support for community policing, an additional fire rescue squad, and use of the balance of funds to invest in transformative projects are detailed.

Transformation Plan Phases

The City's Transformation Plan is designed to achieve a sustainable operations and asset management platform in three phases:

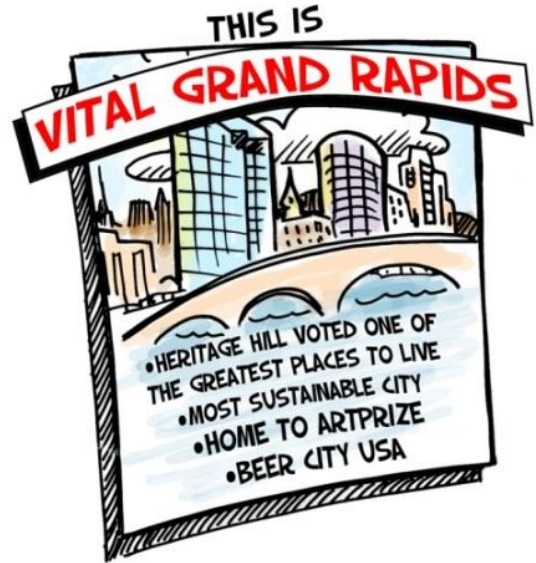
- **Phase I - Operations**
Desired Outcome: Achieve solid operating performance; General Operating Fund revenues will equal or exceed General Operating Fund expenditures on an ongoing basis.
- **Phase II - Asset Management**
Desired Outcome: Preserve public infrastructure assets; use planned, consistent, strategic investment strategies to insure the infrastructure necessary for urban life (such as streets, parks, buildings, and stormwater) is in good repair.
- **Phase III – Sustaining Best Practices**
Desired Outcome: Never go back to former state; continuous improvement must never cease. The organization shall use effective tools and practices, like Lean Thinking, to keep positive momentum.

The [Fiscal Year 2014 Fiscal Plan](#) Management Letter describes the need to focus on sustainable asset management as the City enters into Phase II of its Transformation Plan. In September of 2013, a detailed plan for Phase II will be released. Our report recommendations are a critical component of this work. We agree that transformation will provide a solid foundation for residents, businesses and neighborhoods to achieve their potential. Their success can be supported by a sustainable city that is not a financial or physical distraction. This important work must continue.

Basis

Our Vision

Grand Rapids is recognized regionally and nationally as a vital community. It is this vitality that attracts new residents and businesses to the City and makes them want to locate and remain here. The current condition of our streets threatens to weaken the very foundation on which our successes have been built - those elements that make this a great city in which to live, work and play.



One of our oldest neighborhoods, Heritage Hill, was named "One of the great places to live in America" by the American Planning Association. We're known for our work in Sustainability and, in 2010, were named the Most Sustainable Mid-size City in the U.S. by the U.S. Chamber of Commerce and Siemens Corporation. Grand Rapids is also home to ArtPrize, the world's largest open art competition that turns the City into a public art venue where visitors roam among the artists' work and vote for their favorites. Streets and other infrastructure within the public right-of-way such as trees, sidewalks and bike lanes, create the context for a healthy and vibrant community. Walkable neighborhoods require sidewalk ramps and shade. Animated business districts demand on-street parking, wide sidewalks and attractive landscaping - even better if stormwater is also managed where it falls.

Will Grand Rapids continue to be a great place to invest in a home or business? To visit? To attract and retain a high-quality work force and their employers? If our street system fails, so will we. Grand Rapids must be able to provide the infrastructure needed to drive important outcomes. Our vision for the future of our streets system is described below.

Our Vision

City Streets and rights-of-way will be accessible, attractive, and safe, serving all people of our community, contributing to the livability of our neighborhoods and business districts and increasing economic opportunity to individuals, businesses, and new development.

Infrastructure assets will be maintained and well-managed, using a multi-faceted funding strategy and innovative approaches to preserve our investment.

Our Desired Outcomes

The City's [Master Plan](#), [Green Grand Rapids Report](#), and [Sustainability Plan](#) were noted by the Transformation Advisors as the guiding documents for decision-making as the city transforms. Our Task Force relied on these plans, task force discussions, and community input to create the following guiding principles and to define desired outcomes. The framework for desired outcomes is derived from themes of the City's 2002 Master Plan:

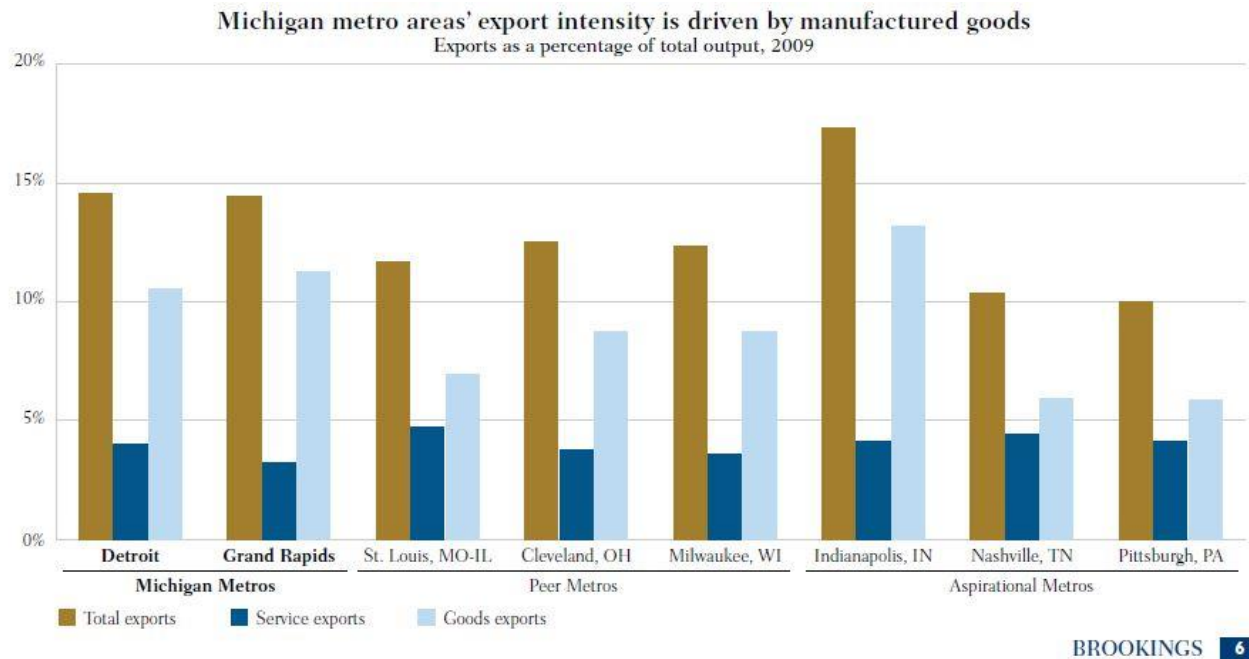
- A Strong Economy
- Vital Business Districts
- Great Neighborhoods
- Balanced Transportation
- A City that Enriches our Lives
- A City in Balance with Nature
- Partnerships

Guiding Principles

- Well-maintained city streets contribute to the economic vitality and sustainability of our community.
- We want to establish partnerships and leverage other infrastructure investment where possible.
- The city's transportation system should be interconnected, multimodal and designed as Vital Streets.
- We must efficiently move goods and people throughout the region.
- We want to regard city streets as "places" that are walkable, attractive, green, accessible and safe for all.
- We must continuously manage and invest in our street assets.
- We must continuously explore and test new practices and applications as they emerge (e.g. green infrastructure, financing methods, pavement techniques, etc.).

A Strong Economy

We know businesses care about the quality of our streets. Streets are essential for getting retail and manufacturing products to companies, then distributed to customers. We need to ensure that our streets will allow businesses to get their products and services to, and from, all markets.



The chart, above, from the Brookings Institution Report on Michigan's Economic Condition depicts export intensity and shows that Grand Rapids is right on par with our counterparts in the Midwest. The report finds that Detroit and Grand Rapids are among the most export-intensive large metropolitan areas in the nation, sending just under 15% of their total output abroad in 2009. Not surprisingly, Canada is the top trading partner for these two large metropolitan areas. We export most of our goods to Canada by truck - and these trucks use our streets.

Vital Business Districts

When we ask a simple question of citizens - which of our business districts do you like to shop in? The consistent answer involves districts with good streets, walkable sidewalks, shade, curb ramps, cross walks, lighting and interesting amenities. In other words, comfortable and interesting places. Occupancy rates in business districts reflect this simple preference. Districts with broken down infrastructure struggle.²

² Neighborhood Ventures - Mind the Gap Retail Market Study for the Uptown, Southtown and South West Micro-Regions of Grand Rapids. June 2007. Camoin Associates

Is there a positive economic impact when we reconstruct a street? Our experience here in Grand Rapids shows that there is. Examples of good results include Cherry Street, East Fulton, Ionia Avenue, Diamond Avenue, Grandville Avenue, Wealthy Street, Plainfield Avenue and Monroe Center. Neighborhood areas such as those around Madison, Logan, Sherman, Lake Drive and Ethel have all seen the benefits.

Empirical research also shows that property values increase when you have better streets. “For many communities, street beautification has been viewed as an unnecessary expense. But as cities compete for investment, new residents, and tourists, there can be a substantial return on design dollars. . . . And indeed, cities that have invested in their public realm are seeing improved property values and increased retail sales.”³

Great Neighborhoods

“Complete streets boost the economy by increasing property values, including residential properties, as generally homeowners are willing to pay more to live in walkable communities.”⁴

Grand Rapidsians take pride in their neighborhoods. Community pride is reflected in homes, yards and neighborhood associations. The quality of our streets and public rights-of-way directly affects the quality of neighborhood life. During community meetings, neighbors told us stories about how they have tried to mitigate an obvious problem. Examples included:

- A homeowner described providing guests with specific directions to her home in order to avoid the worst streets.
- A realtor told us how he used circuitous routes in order avoid bad streets in the neighborhood for house showings.
- One West Side resident told us of the pride he had in his home and all the care he took to make it special. Then, he showed us a picture of the broken down curb in front of his house. His simple statement was that this missing curb directly affected his quality of life and property value.



³ *Why Street Design Matters* - www.planetizen.com

⁴ Complete Streets - www.completestreets.org

ACCESSIBILITY

WE NEED TO PROVIDE
QUALITY ACCESSIBLE TRANSPORTATION OPTIONS
FOR ALL MODES SO PEOPLE CAN GET TO WORK,
SCHOOL, HEALTHCARE, SHOPPING AND PLACES OF WORSHIP.

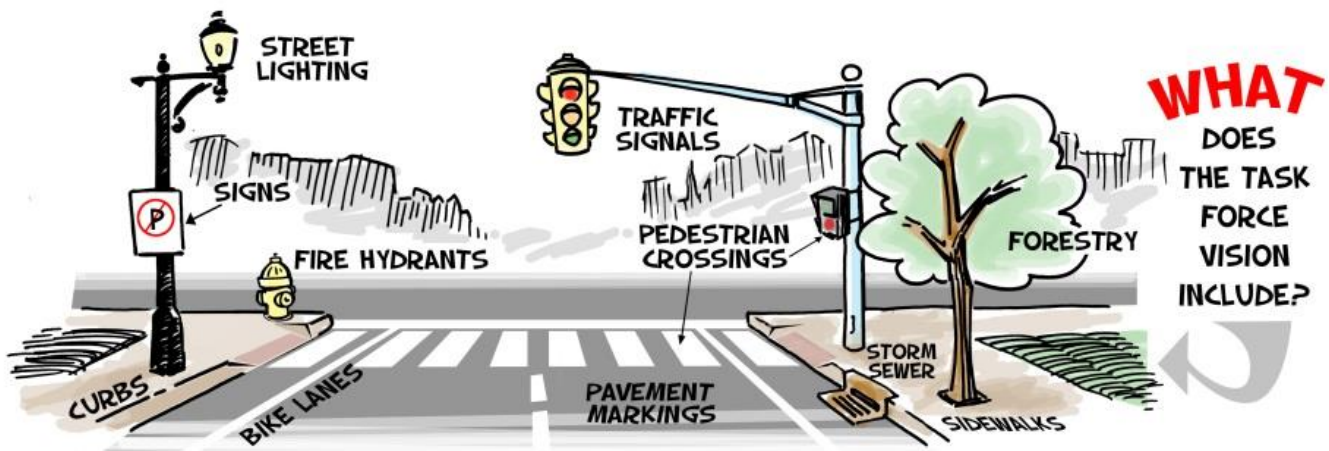


Balanced Transportation

We want to accomplish a vision that works for all people in our community. Our vision is for our streets and sidewalks to be accessible to all people and to all modes of transportation so people can get where they need to go independently - to work, school, healthcare, shopping and places of worship. Properly designed infrastructure, inclusive of all modes, assists in placemaking and encourages redevelopment. We need “Complete Streets” – a quality transportation network that serves all modes, for everyone. It’s about moving people, not just vehicles.

Our streets and street rights of way are our community’s single most important public space in terms of size, visibility and use. The total acres of street right-of-way is three times greater than the total of all the City’s parks. It’s an asset that we shouldn’t take for granted and that we need to maintain.

A community’s streets are a defining characteristic of place and include many elements, such as the roadway or street itself, curbs and curb cuts, landscaping, sidewalks, bike facilities, pavement markings, and the relationship of buildings and sites to the street.



Our vision includes all of these features. However, we understand that every feature may not be appropriate on every street or in every neighborhood. **The ability to design and provide the right features in the right place is key.** There are many unmet needs for mobility and access of people throughout the city currently; and, for some, it’s not a matter of convenience—it’s necessity.

A City that Enriches our Lives

A walkable community can increase housing values and add to the richness, health and wealth of our city. People make decisions about where to live and work and and/or locate their business based on the quality of life and access to opportunities a location offers. Families check the “Walk Score”⁵ of a neighborhood before deciding to move in.

Throughout the U.S., chronic diseases and obesity are on the rise, pointing to a need for a more active and mobile society. There is also a focus on sustainability and the environment today which leads more and more residents to want to park or abandon their vehicle for a more environmentally friendly mode of transportation.

Sidewalks

Our street system includes over 1,100 miles of sidewalks. If you add our trail system to that, the mileage begins to approach 1,200 miles. This is twice the length of our street system of 588 miles and is equivalent to taking a trip to Minneapolis and back!

IS THIS WHAT WE WANT OUR STREETS TO LOOK LIKE?



OR



One of the first things we, as a Task Force, were asked to do was list our favorite and least favorite streets. The streets we liked best were more vital, walkable, bikeable, in balance with nature and accessible. And, the ones we liked least were more vehicle focused, wide streets, narrow sidewalks, and not as people-friendly. Citizens who attended the community meetings that the Task Force held in 2012 gave similar responses when asked the same question. Residents routinely advocate for traffic calming and beautification. Business districts value on-street parking, outdoor cafes, decorative street lighting and inviting streetscapes.

⁵ Walk Score is a website (www.walkscore.com) that takes a physical address and computes, using proprietary algorithms and various data streams, a measure of its walkability. More recently it's started tracking how transit-friendly neighborhoods are too. What drives the score is choice and proximity—the more amenities (restaurants, movie theaters, schools) you have around you, and the closer they are, the higher your Walk Score.

A City in Balance with Nature

Our investment in Vital Streets provides a valuable opportunity to improve asset management of our stormwater infrastructure, also known as “Green Infrastructure”, to reduce the quantity and improve the quality of stormwater as it is released into the Grand River – our most important natural resource.



In Grand Rapids, it takes only 15 to 30 minutes for rain and stormwater to reach the Grand River and comparable waterways via the municipal stormwater sewer or by flowing directly into the river or its tributaries. This stormwater runoff is the leading source of water pollution in West Michigan. It is also a significant contributor to critical environmental and economic issues such as erosion and infrastructure decline. Impervious surfaces including streets and walkways contribute to stormwater runoff.

One way to combat this issue is to utilize “Green Streets” where possible to effectively capture and filter stormwater close to the source. Green streets have proven to provide multiple benefits along the street right-of-way including:

- Creating a better integrated system of stormwater management within the right-of-way at lower total cost and higher value for the overall stormwater system;
- Volume reductions in stormwater, which reduce the volume of water discharged via pipe into receiving streams, rivers and larger bodies of water;
- Linking component in community efforts to develop local green infrastructure networks;
- Aesthetic enhancement within the public right-of-way;
- Improved local air quality, by intercepting airborne particulates and shade for cooling;
- Enhanced attractiveness for economic development; and
- Improved pedestrian experience along the street right-of-way.

Adding Green Streets to Complete Streets equals a Vital Street System that meets the triple bottom line for our community’s economy, environment and people. This approach is entirely consistent with the City’s 2013 Stormwater Master Plan, the 2011 [Green Grand Rapids Master Plan Update](#), the City’s [Sustainability Plan](#) and the City’s [Master Plan](#). An added bonus is that also assists with State and Federal regulatory compliance, particularly for stormwater.

The West Michigan Environmental Action Council has stated, “The development of Complete and Green Streets is a smart investment for long-term prosperity of our local economy and natural resources that compliments place making throughout the community. The Grand Rapids Sustainable Streets Task Force has an opportunity to include green streets as part of the plan to address the city’s street crisis.” We concur fully.

Partnerships

Grand Rapids is known for its success with both public/private and public/public partnerships. The evidence is all around us and continues to grow. The City's 2002 [Master Plan](#) helped formalize and accentuate the role of partnerships in our community and predicted that “collaboration among city departments, residents, property owners, businesses and institutions will be essential in bringing the [Master Plan's](#) recommendations to fruition. Both regional and community partnerships are needed.”

During Transformation, the City has looked at consolidation of operations both internally and externally. Examples include combining assessing certain services with Kent County to consideration of regional fire service models. The best resource on efforts in this regard is the latest report to the State of Michigan on the City's collaborative efforts. This report may be accessed [here](#). Continuous evaluation of operations and maintenance practices, combined with relationship building efforts and dialogue amongst agencies that share similar services, is critically important to our city's future.

Partnerships have been essential to the City's investment in street infrastructure and will continue under this plan. A sample of partners include the Michigan Department of Transportation, Grand Valley Metropolitan Council, Downtown Development Authority, Brownfield Redevelopment Authority, Kent County Road Commission, Grand Rapids neighborhood and business districts, neighboring communities, and development partners and business owners who opt to pay special assessments for extra street features. By working together, we can leverage additional improvement to our street system. It all adds up.

The Current State

Investment

Investment in streets and infrastructure has been a significant issue for more than a decade. The 21st Century Infrastructure Task Force provided recommendations in 2002 regarding the amount of investment needed to restore and maintain our streets. Their recommendations relied upon others taking action first, before significant local investment was requested of the voters. Those pre-conditions were never met; so, as a result, no progress was made.

Grand Rapids' streets deteriorated from approximately 60% in Fair to Good condition in 2002 to over 60% in Poor condition today because investment just was not enough to keep up. The personal cost in terms of damage to our cars (estimated at \$374 avg/year⁶) and reduced property values will continue to worsen each year. If we want a different and better outcome all of us must commit to action now. We believe it is time to invest with local and state resources.

General Operating Fund (GOF)

A priority of Phase I of the City's Transformation process is to ensure that General Operating Fund (GOF) revenues support GOF operating expenditures. The City used to invest GOF monies to support public streets. It can't anymore. The General Operating Fund pays for services such as Police and Fire; parks; City Clerk, City Attorney and other functions that are required per State mandate or City Charter; and other normal and necessary business functions such as Human Resources, IT, and accounting.

Street investments are capital in nature and are not typically supported by the GOF. The 21st Century Infrastructure Task Force recommended that the City invest GOF dollars in streets and then seek other sources of funding before asking for additional local investment. The level of GOF support they recommended was not sufficient by itself to support required asset management investments. It has become clear that an expectation of GOF support for streets has no long-term sustainability. Core GOF services cannot be sacrificed in the name of paving a street. Over the past decade the Mayor, City Commission, and City Manager have had to make very difficult budgetary decisions about community priorities. City leaders removed the allocation for streets



⁶ Michigan Contractor & Builder, *The State of Michigan Roads*, by Monica Ware – May, 2013

funding from the GOF for Fiscal Year 2013 and beyond as they faced the painful reality that, without a sufficiently funded dedicated stream of investment, the work required to maintain one of the city's greatest infrastructure assets will always be insufficient. GOF dollars are for core services not streets. We were charged with finding a solution.

***AREN'T MY CITY TAXES USED FOR STREETS?** **ANSWER: NO**

PROPERTY TAX DISTRIBUTION FY12

34% GENERAL
29% VOTED LIBRARY MILLAGE
22% REFUSE
15% CAPITAL IMPROVEMENT

INCOME TAX DISTRIBUTION FY12

83% GENERAL
13% TRANSFORMATION
4% CAPITAL IMPROVEMENT

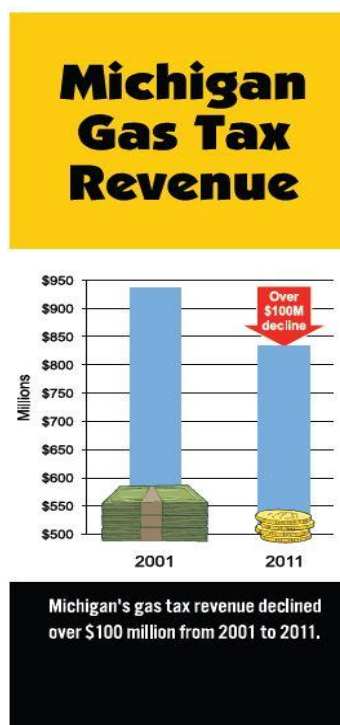
Many people think that the taxes they pay to the City include maintenance of the streets. In reality, City Property and Income Taxes are not used for street funding.

The General Operating Fund receives the largest percentage of these taxes and, again, this fund is used to pay for public safety (which received approximately 2/3 of total GOF funding), parks and other mandated or business functions of the organization. The Library Millage is a set percentage that citizens previously voted to set aside to support library operations and capital improvements. The Refuse Fund is currently set at 1.6 mils. By State law, the City is allowed to collect up to 3 mils for this purpose.

In relation to the amount and value of City-owned facilities and other infrastructure, a relatively small amount of property and income taxes (15% and 4%, respectively) are set aside for capital improvements on physical assets. This capital improvement funding is strictly used for City-owned facilities, stormwater, parks, and street lighting. As stated earlier, although street investments are capital in nature this asset is no longer supported by the GOF. Financial needs are too great to adequately support the city's streets, alleys, sidewalks, bridges and other important infrastructure within the public right-of-way.

State and Federal Monies

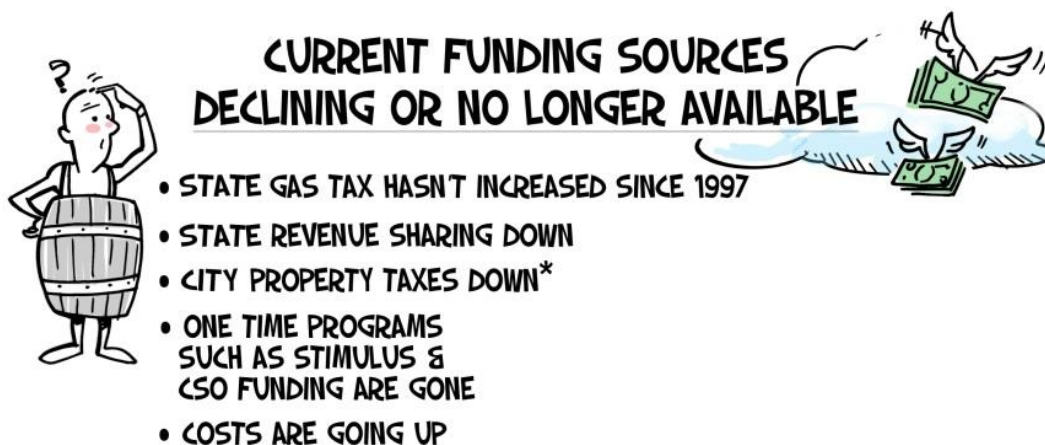
The main source of funding currently available for street operations, maintenance and construction is the State Gas Tax. The State Gas Tax is an excise tax not a sales tax and is calculated based on a flat rate per the number of gallons sold. The 6% sales tax on gas goes to the State General Operating Fund, not transportation. The Gas Tax has not kept pace with inflation and revenues have actually decreased due to the use of more fuel efficient vehicles and drivers purchasing less gas due to increasing



fuel prices. The gas tax was last increased in 1997. Inflation has far outstripped this increase as costs for materials, labor, and associated services continue to go up. Fewer resources drive increasingly poor conditions for us all. This has left a system in disrepair and desperately in need of new revenue.

“The four-cent per gallon increase enacted in 1997 was not adequate to pay for both system-expansion projects and preserve existing pavements and bridges. The long-term costs to restore bridges and pavements to good condition will increase once they become deteriorated. Accidents also tend to increase on poor pavements because the surface provides less friction, which increases rear-end and run-off-the road crashes. The lessons from 1997 are that any new investment for the trunkline system should be adequate to ensure the long-term condition of its pavements and bridges. To ensure that Michigan has a highway network that is sustainable for the long term will require a substantial investment significantly greater than in 1997. Otherwise, Michigan will be on a path to return to the pot-holed pavements and load-limited bridges of the 1990s.”¹

In addition to shrinking State Gas Tax monies, the State of Michigan has also substantially cut revenue sharing payments to the City. These payments have been declining since 2002; the City’s General Operating Fund now receives \$11 million less per year than a decade ago. These dollars have been partially replaced by the State’s Economic Vitality Incentive Program (EVIP) payments, but these amounts remain uncertain from year to year and currently are being deposited in the City’s Transformation Fund and used for that purpose.



One-time programs that helped sustain streets investment in the recent past are no longer available. American Recovery and Rehabilitation Act (ARRA) Federal stimulus funds are gone. The Combined Sewer Overflow (CSO) project which was undertaken citywide to separate the storm from the sanitary sewers is nearly complete. Public infrastructure was reconstructed in neighborhoods covering an area of approximately 6.5 square miles - an area larger than the entire

City of Grand Haven. Unfortunately, many of the first CSO project streets on Grand Rapids' west side were completed in the late 1990's and are already in need of rehabilitation or reconstruction due to lacking investment in maintenance.

As was done during the Combined Sewer Overflow work, the City has leveraged funding through other projects whenever and wherever possible to stretch our dollars. Leveraging other resources is essential and staff has demonstrated that this is accomplished on a routine basis. Grants are an important part of the funding mix but they are limited and must be matched. Our Task Force evaluated whether pursuing grants was a distraction to asset management or if they contributed to achieving asset management goals. We concluded that grants are an important part of the funding mix and that matching dollars should be applied whenever possible.

Efficiencies

The City has tried to squeeze every ounce of efficiency from operating funds, including the Major and Local Street fund. The City has:

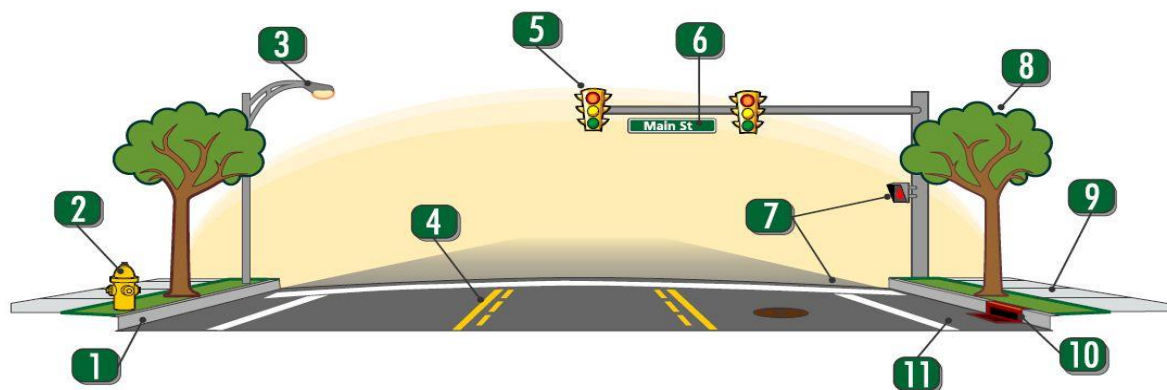
- Negotiated staff-wide reductions in total compensation totalling 12.5%
- Reduced staff by 19% over the last 10 years (12 persons) in the Streets Department and eliminated nearly 500 positions organization-wide
- Reduced the truck fleet by over 10% (most in winter maintenance)
- Changed salt spreading protocols to reduce costs and reduce salt's effects on street surfaces
- Reduced staff time allocated to routine street maintenance
- Adjusted guard rail replacement standards
- Eliminated street maintenance resurfacing



These efficiencies are important and operations are tighter, however, the clear result has been survival at a lower level of service. We have learned that we can't bring our streets back to an acceptable level by finding efficiencies alone. Cutting additional staff or further reducing salting protocols will not provide the amount of investment needed to rebuild our infrastructure. The total operational budget for all street services is just under \$10 million per year. As you'll see, the amount we need to invest is more than twice that amount.

Condition

The street right-of-way extends beyond the street itself and consists of more than just the pavement surface. It is critical to consider what is above and below that surface and what is needed to make the right-of-way a safe place to walk, bike or drive. It includes everything from water, sewer, and stormsewer pipes; conduit for fiber, cable and other outside utilities; sidewalks, curbs, gutters, drive approaches, pavement markings, signs, signals, trees and other infrastructure not illustrated below such as stormwater bioswales.



City funded street features

- | | |
|---------------------------------------|----------------------------------|
| 1 Curbs, Gutters and Drive approaches | 7 Pedestrian crossings |
| 2 Fire hydrants | 8 Forestry |
| 3 Street lighting | 9 Sidewalks |
| 4 Pavement markings | 10 Storm Sewers and Catch basins |
| 5 Traffic signals | 11 Bike lanes |
| 6 Signs | |



Snowplowing

These features and services are also funded with City dollars



Street sweeping



Traffic calming devices



Street maintenance



Storm drain vacuuming

All of these infrastructure components must be accounted for and coordinated. Good design of this system will determine whether it is a safe place to walk, bike or drive. The complexity of it is essential to urban life; and it is that complexity which drives cost.

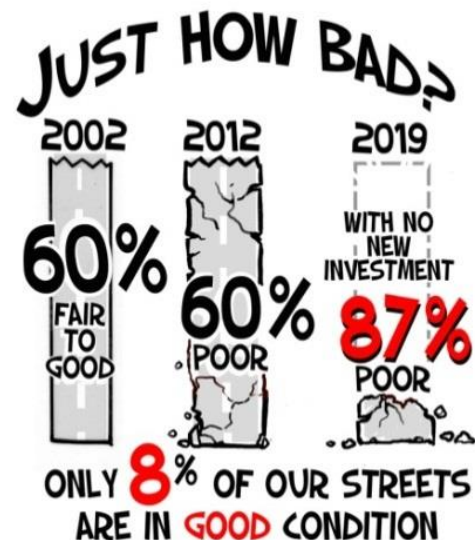
Measurement

Each one of the components has a life span. The most obvious asset that readily shows its age is a street's pavement. Grand Rapids' Engineering Department works closely with the Grand Valley Metro Council to assess and inventory pavement condition. In 2002, a Pavement Condition Index or PCI rating was used to determine street condition. The Pavement Surface Evaluation Rating, or PASER, software is used today. PASER gives us good, fair and poor ratings which indicate the level of degradation of the street's surface as well as how severe underlying issues might be below the surface.

The total acreage of Grand Rapids' streets and rights-of-way is almost three times that of the total acreage of city parks; making streets one of our largest and most valuable public assets. The City has accurate, up-to-date condition data on each street segment in our 588 mile inventory. Staff undertakes extensive planning to ensure that they apply the right fix at the right time for the right result when they have the right resources. This information was critically important to the Task Force as we assessed the degree to which we could improve our streets at the best price.

Our Streets

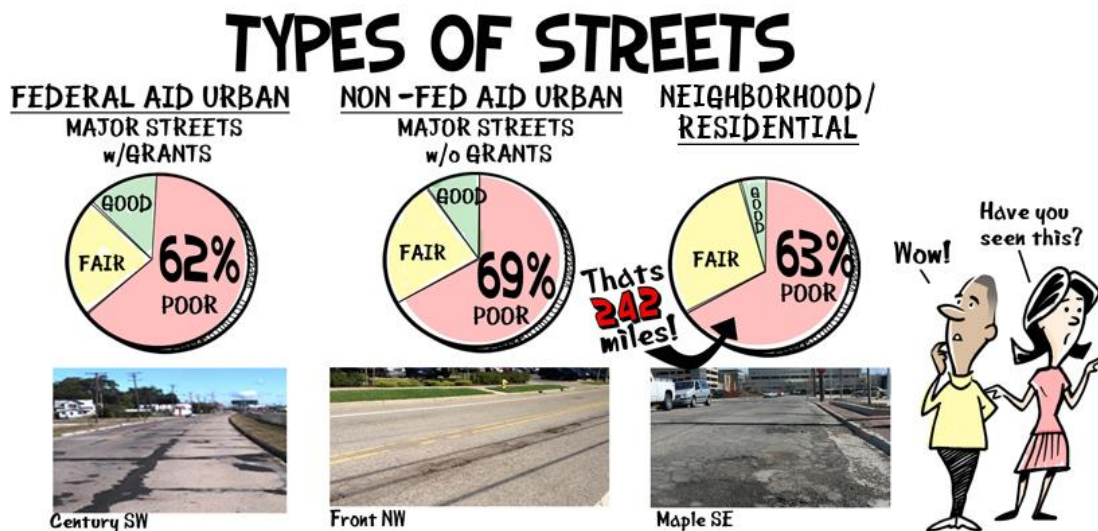
In 2002, the 21st Infrastructure Task Force determined that on average 60% of our streets were in good or fair condition but most were at that critical point where intervention was needed in order to preserve our investment. Improvements were made, but the City was never able to reach the level of investment recommended by the 21st Century Infrastructure Task Force in order to maintain, or improve, existing conditions. Costs rose and revenues fell, creating a perfect storm with disastrous results that will cost exponentially more to fix. Our streets deteriorated from 60% fair to good to 60% poor in just 10 years. With no new investment, nearly all of our streets will be in poor condition by 2019.



Today, over 60% of our streets are in poor condition, less than one-third are fair and only 8% can be considered as good. Out of a total of 588 miles of streets, 371 miles are in poor condition. The deterioration is spread throughout the system and is not confined to one type of street. An alarming 242 miles of those in poor condition are our local, or neighborhood, streets. Each of these classifications has a significant percentage of streets that are in poor condition and in need of major reconstructive work. More of our “fair” streets will continue to fall to poor if action is not taken in the very near future to save them from slipping into “poor” condition.



There are numerous different ways to classify streets depending upon the funding source and regulatory authority. As we tried to discern between them, the best approach seemed to be to classify street type by funding source to ascertain the city's ability to invest. Streets fell into three major categories: Federal Aid Urban (FAU), Non-Federal Aid Urban (Non-FAU) and Neighborhood Streets. The majority of all of these streets are in poor condition. However, it should be noted that where there is at least some dedicated monies towards a certain type of facility, a greater number of streets are in good condition than for neighborhood streets – which only receive one-quarter of the funding that other street types receive through the State Gas Tax.



Major, FAU (Federal Aid Urban) Street- A street in an urban area eligible for federal assistance under Title 23 of the U.S. Code. These streets are essential for getting to work or home, and traveling to and from business districts and commerce. They move more people, visitors and goods than other streets. There are 156 miles of FAU streets in the City.

Major, Non-FAU (Federal Aid Urban) Street - A Major or Collector street not eligible for Federal Aid. Non-FAU Major Streets serve as critical connectors between FAU Streets and Local Streets. There are 48 miles of Non-FAU Streets in the City.

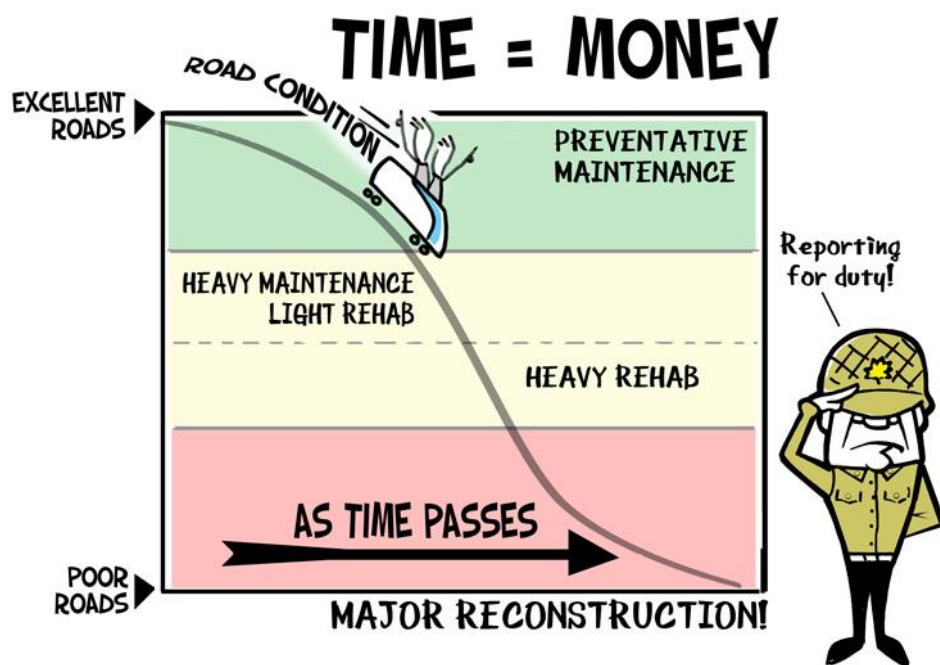
Neighborhood/Residential Street (sometimes considered “local” streets) – These streets provide access to property and host our homes. They support our quality of life and make a neighborhood better—or worse. Over 2/3 of Grand Rapids’ total street system is made up of neighborhood or residential streets (384 miles out of a total 588 miles).

Please note that *Appendix D* contains examples of street types and the PASER ratings.

Time Equals Money

Waiting has expensive, hard-cost consequences. Preventive maintenance is least expensive and the most effective. Heavy rehabilitation can return most streets to good condition at less than the cost of reconstruction. Major reconstruction should be the last resort. The chart below illustrates that the more time passes the more significant the fix needs to be.

Generally speaking, streets that have a PASER rating of 1-3 (in red) are in need of complete reconstruction and are considered in “Poor” condition. Streets that have a PASER rating of 4-7 (in yellow) are regarded in “Fair” condition. Those that are rated 8-10 are in “Good” condition (in green and yellow). “Fair” condition streets are those critical streets that benefit the most from asset management interventions. Within the yellow, there is a dotted line that signifies the “point of no return” – where those most at risk if no action is taken to preserve them require heavy rehabilitation and a greater cost.

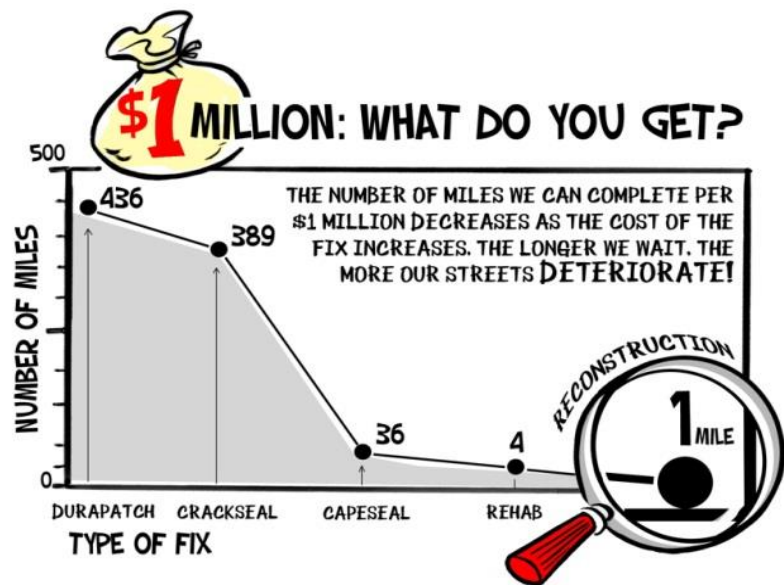


The longer we wait, the more our streets deteriorate, and the more expensive the repair treatment. Even preventive maintenance fixes can be costly. To repair one lane mile of street it can cost:

- crack sealing @ \$2,600;
- Dura-patching @ \$2,300;
- Resurfacing/rotomilling @ \$266,000;
- Full reconstruction of asphalt street @ \$872,000; and
- Full reconstruction of concrete street @ \$1 million per lane mile.

We know that our money can go farther if we can get in and make improvements to extend the life of our streets rather than waiting until they are in such bad condition that they require full reconstruction.

This chart shows how far each \$1 million spent will go to preserve or maintain a street. The number of lane miles on the left-hand side shows what type of fix can be accomplished for \$1 million invested. The more expensive the fix, the fewer number of lane miles we are able to repair or replace. As the number of streets in Poor condition rises, the price tag to fix them climbs.



COST OF STREET CONSTRUCTION

• PREVENTIVE MAINTENANCE

- CAPE SEAL = @ \$4.21/sq. yd. = \$27,200/lane mile. **We could do 36 lane miles for every \$1M dollars allotted (this is contracted work)**
- SPRAY PATCHING / DURA PATCH = 3-staff crew average (could be 2 or 4 depending on traffic needs). \$2300/lane mile. **We could do 436 lane miles for every \$1M allotted.**
- CRACK SEALING = 5-staff avg. (could be 4-6 depending on traffic needs). \$2600/lane mile. **We could do 389 lane miles for every \$1M allotted.**

• REHABILITATION

- RESURFACING/ROTOMILLING (Mill & Overlay 1 3" Thick) = \$265,672/lane mile*. **We could do 4 lane miles for every \$1M allotted (this is contracted work)**

• RECONSTRUCTION

- RECONSTRUCTION = For a 12" sand subbase; 4" 21AA gravel and 8" hot mix asphalt. \$871,904/lane mile*. **We could do 1 lane mile for every \$1 million allotted (this is contracted work)**
 - The average cost for reconstruction of a brick street is \$193/square yard or \$1.7 million/lane-mile.
 - The average cost for reconstruction of an asphalt street is \$99/square yard or \$872,000/lane-mile.
 - The average cost for reconstruction of a concrete street is \$161/square yard or \$1.4 million/per lane-mile.

*Based on actual costs from 2011 projects.

Note: For the purposes of the software, we use 15' wide lanes and only two lanes per street. The 30' width is the average of all of our streets.

Asset Management

Grand Rapids' street system is a vital asset of at least \$1 billion in value and is key to our regional transportation network, our neighborhoods and our economy. We know we can extend the "life" of this investment through a planned approach utilizing asset management.

Everyone knows that if you own a home, you will need to invest in that home in order to maintain it in good repair. It's a responsibility you commit to when you purchase that home. Every so many years you will need to fix or replace your roof or paint your home. These are investments that you make and you understand that making the investment sooner, before the roof starts leaking or before the paint starts to chip off, will save you money in the long run.

It is the same concept with our streets. Routine repairs have not been made on a regular basis because the resources needed for investment have not been there. The condition of our streets has deteriorated over the last decade due to a lack of sustainable State and local funding sources to support asset management.

We learned that the City has produced good outcomes by developing and investing in asset management plans for the Water and Sewer utilities and the Parking System. As demonstrated in the inset, the City has taken Asset Management planning for streets to implementation. The principles of Asset Management are being used to deliver the current street program, but adequate resources are not available for full implementation. We are confident that, with the right level of resources, the City will produce exceptional outcomes for our street and sidewalk infrastructure which match our quality of life.



Considerations for Investment

Balancing Condition with Investment

It is critically important that future investments are sufficient to produce visible results and achieve desired outcomes. As noted earlier, city staff provided critical data about our street system. This analysis provided the real-time condition of each street segment in the city. Staff then calculated the cost of achieving certain levels of service depending upon desired street condition and duration of investment. Many of the charts prepared for review as various scenarios were researched are included for review in Appendix E.

In setting a goal, we attempted to balance the condition we want our streets to be with the cost of getting there. Some of the options reviewed included looking at what it would cost per year, for 15 years, to get to various percentages of the system in a State of Good Repair, which is considered in either in Good or Fair condition on the PASER scale. We also looked at stretching this over 30 years but found that 15 years provided the best planning horizon.

Preferred Condition Goal

It was determined that 70% of our streets should be in a State of Good Repair (either in Good or Fair condition) after an exhaustive review and months of discussion. This seemed to be the right balance point and provided enough room to include the opportunity to create a beneficial change to the current asset management practices of the sidewalk system. We determined that if we sought to invest more in streets, then we would be impairing other important community needs. On the other hand, if we were to invest less, the conditions necessary to support the valued quality of life in our neighborhoods and business districts would not be realized.

Investing to achieve 70% of our streets in a State of Good Repair and improving our sidewalk system will cost \$22 million per year over the next 15 years. This is significantly higher than our current level of investment, but our Task Force believes that it is achievable. Options for reaching the necessary level of investment were then carefully reviewed. It was important to keep in mind that no one funding source could be responsible for the entire investment. As we reviewed investment options, the 70% target confirmed that the proper balance point had been chosen as the best alternative to achieve the best results at attainable price.



Preferred Local Investment Option

There are many potential street investment options, but the Task Force found that most are not available due to the need for State enabling legislation, like a local registration fee or additional local sales tax used elsewhere in the United States. Other options are currently in the pilot test phase and are not a viable near-term solution, such as a Vehicle Miles Traveled (VMT) Fee.

We also researched the possibility of using Parking fees to pay for street infrastructure. We found that there may be limited opportunities to use parking fees to invest in parking lanes on streets where metered parking is present. This would not provide a significant source of support for streets.

The most readily available local options for streets funding are an increase in City Property Tax rates or a continuation of the current City Income Tax rate, both of which would require voter approval.

If Property Tax were used, an additional 2.25 mils would be needed to generate \$9 million per year. That's an increase of approximately \$100 for the average residential property in Grand Rapids with a taxable value of \$44,592.

If Income Tax were used, citizens could choose to continue the current Income Tax rate and not see any increase from what is already being collected. Citizens generously voted to increase the Income Tax rate by 0.2% for five years to allow the City organization time to transform its operations. The transformation is on schedule and will be completed by the time the increase is set to expire on June 30, 2015. This sunset provides the opportunity for voters to consider extending the income tax rate they currently pay to get the value of better streets and sidewalks.

The current, temporary amount of income tax costs the average taxpayer in Grand Rapids about \$2 per every \$1,000 of income subject to tax. For example, a family with a combined taxable income of \$30,000 is paying approximately an additional \$60 in City income taxes currently. This additional income tax provides the City with approximately \$9 million per year. Citizens could choose to continue the Income Tax at its current level and dedicate by designation that those funds would only support streets and sidewalks. Everyone would continue to pay what they are currently paying while also wisely investing in the maintenance and repair of one of the city's largest assets. Vital Streets are critically important if we desire to see our Master Plan realized and to witness the bright future of our community.



State Investment Options

State and local governments must provide a stable platform for economic success. Street infrastructure is a key element of this platform. It is imperative, therefore, that the State act quickly to provide additional investment for street infrastructure for Grand Rapids and throughout the state. The Governor's \$1.2 billion Transportation Package would restore the State's role as our investment partner for streets and would translate to approximately \$6 million for Grand Rapids if passed as proposed.



Several varying versions of the transportation package are being discussed currently by the State legislature. It is our belief that a package will eventually be settled upon, and our hope is that it provides Grand Rapids with an amount that is at least close to the \$6 million upon which we have based our work. The addition of funding sources from the State would move us down the path to restoring our streets to the target condition.

Other Financing Options

We learned from the 21st Century Infrastructure Task Force that we could not wait for others to take action. Grand Rapids needs to invest in itself now. We also concluded that continuous innovation is required. The Sustainable Streets Task Force resolves to continue to work with the City and State to explore additional resources and investment options. The landscape for transportation investment is evolving rapidly, and we are committed to continuing to seek viable and sustainable alternatives, including State accountability and investment.

Other options that were researched, but determined to be not ready for use in Grand Rapids at this time for a variety of reasons, included:

- County-wide vehicle registration fee (requires State authorizing legislation and a County-wide vote)
- Local vehicle registration fee (requires State authorizing legislation and a city-wide vote)
- Local sales tax (not currently permitted by the Michigan Constitution)
- Parking surcharge fees (not currently enabled by Michigan law)
- Road utility fee (not currently enabled by Michigan law)
- Special assessment (most applicable for new construction, not reconstruction or maintenance)
- Surcharge on ticket sales/entertainment (not currently enabled by Michigan law)
- Toll roads/bridges (not currently enabled by Michigan law)

Asset Management

Asset management is a systematic process of operating, maintaining, upgrading, and disposing of assets cost-effectively⁷. City staff has been doing asset management to the best of their ability. Leveraging, writing successful grant applications and creative problem solving has been a relatively effective approach in very lean times. However, this piece-meal approach leaves a significant number of assets behind simply because there is not the flexibility or resources to make system-wide improvements. Knowing what needs to be done to maintain our street system and having the investment resources available to take action are two different things. There is a long list of needs but only a few projects are completed every year.

Providing the investment necessary for a balanced asset management program is essential to ensure that our desired outcomes are achieved. The City's approach to managing our street system must include heavy early investments in preventive maintenance and rehabilitation in order to save those streets currently in the best condition and return those on the brink of Poor condition into a state of either Good or Fair condition. Time equals money; the longer street maintenance is deferred the more financial resources are needed to restore it. More extensive reconstruction of those streets that can't be saved should occur after assets in Good and Fair condition are appropriately triaged.

Sidewalks

Knowing that accessibility and mobility throughout our city hinges not only on a quality street system but also on a quality sidewalk system, our Task Force determined that we needed to find an effective way to address sidewalks. The saying goes "everyone at some point is a pedestrian". Whether you traverse by car or transit, at some point you must walk or use your wheelchair to get to the front door of a home, business, doctor's office, school, job or neighborhood park.



The City Engineer's Office worked with us to evaluate better asset management options. Our city has more than 1,100 miles of sidewalk. The current Point-of-Sale Program requires that a homeowner pay the cost of replacing or repairing any damaged sidewalk area abutting their property before closing on any sale of that property. This program has had limited success and there are many administrative and asset management drawbacks.

⁷ [American Association of State Highway and Transportation Officials](#)

The current sidewalk replacement program is reactive rather than proactive. City staff cannot manage the sidewalk system in a way that makes the best use of their time or that of a contractor. In addition to the POS program, City staff will act upon complaints reported by the public. Inspectors, tree trimmers and contractors must move throughout the entire city based on property sales or complaints rather than executing deployment of their services strategically.

And, unfortunately, no resources are available to fill in missing network gaps without conducting a special assessment of an affected home or business. The underlying premise of the current program is that a property owner will benefit from the presence of a sidewalk on their property. While this is indeed true, it neglects a Complete Streets perspective that benefits everyone in our community. We wouldn't build dead-end streets through the city; for a person in a wheelchair on a sidewalk it can certainly feel that we do. If we are truly going to be effective at meeting the needs of all of our citizens and recognize their right to an accessible and safe community, as stated in the Sustainable Street Task Force's vision, then we must do better.

An A3 (see Definitions in Appendix A) prepared by City staff provides several options for better sidewalk management. The document ultimately recommends a city-wide, systematic sidewalk program to proactively address this need. Costs for the entire program are estimated to be \$1,625,000 per year. The City would facilitate citywide inspections and repair or build sidewalks over a 15-year cycle. This projected dollar amount has already been calculated into the proposed total need of the street system at \$22 million per year for 15 years. The A3 completed for this work is included in Appendix F.

Approximately 60% of sidewalk repairs are caused by tree roots. Coordination with Forestry staff is needed for trimming or removing roots from City trees. A proactive asset management program would allow Forestry to plan its work in a more systematic manner, saving both time and money. It is expected that eliminating the Point-of-Sale Program would also allow the City to reduce sidewalk inspection staffing and consolidate with other inspections staff.

This investment would be for sidewalk repair and construction only. Homeowners would still be responsible for snow and ice removal from sidewalks abutting their property and for keeping the sidewalk free from obstruction.

Systematic Asset Management Approach for Sidewalks

- Eliminates property owner responsibility for sidewalk repair costs
- Inspect / repair all City sidewalk in a 15- year revolving cycle
- 73 miles of sidewalk inspected annually
- 250% increase in miles of sidewalk repaired annually
- Provides continuous funding for ADA ramp installation
- Provides for sidewalk and non-motorized connectivity improvements

Enacting a systematic asset management approach for sidewalks will:

- Save property owners hundreds of dollars by eliminating the POS program;
- Save city dollars by allowing staff to proactively and efficiently manage the network;
- Improve the condition and connectivity of the sidewalk system;
- Significantly improve accessibility and mobility for all users;
- Allow for completion of ADA sidewalk ramps;
- Connect missing links in our sidewalk and trails system; and
- Assure access to transit stops.

We recommend that property owners no longer be burdened with the cost of repairing or replacing those portions of the sidewalk abutting their property in need of repair and that a new, more effective and equitable approach be used.

Vital Streets

Vital Streets are a combination of Complete Streets and Green Streets concepts. This approach is essential for our city to become an attractive, walkable, dense, urban community. In the recent past streets were viewed as conduits for the sole purpose of moving vehicles. Similarly, the goal of our stormwater infrastructure system was to move rain water as fast as possible to the Grand River. We have learned that neither one of these design approaches best serves our community.

Benefits of Vital Streets

- | | |
|---|--|
| ❖ Economic | ❖ Access (interconnected networks) |
| ➤ Fewer and less severe crashes | |
| ➤ Access to jobs, education, and businesses | ❖ Mobility (on-street bike facilities, sidewalks, pathways, trails, transit, etc.) |
| ➤ Livability and placemaking | |
| ❖ Environment | ❖ Safety – facilitates safe movement along and across streets (crosswalks, access management, traffic signals time for people, not vehicles, etc.) |
| ➤ Reduced greenhouse gas emissions | |
| ➤ Reduced carbon footprint | |
| ➤ Less oil dependency | |
| ❖ Social | ❖ Character – matches street design to user needs and context (includes everything in the right-of-way) |
| ➤ More active lifestyle (health) | |
| ➤ Equity: Increased mobility and independence | |
| ➤ Quality of life | |

Complete Streets

The State of Michigan provides a definition of Complete Streets as “A system of streets . . . planned, designed, and constructed to provide appropriate access to all legal users in a manner that promotes safe and efficient movement of people, and goods whether by car, truck, transit, assistive device, foot or bicycle.”⁸ All users are defined to include:

- Pedestrians
- Bicyclists
- Transit users
- Motorists
- Trucks
- People with various abilities
- Children
- Elderly

Design Team

The City’s Design Team is a multi-disciplinary, collaborative effort, involving Design Engineers, Planning, Traffic Safety, Fire, Water, Sewer, The Rapid, and other interested parties. This team works with citizens and provides in-house research on the best means and methods for coordination of construction projects. The team reviews project design features to arrive at the best design solution, seeking to balance multiple, and sometimes competing, needs and wants with limited Right of Way space and limited resources.

We want to accomplish a vision that works for all people in our community. Streets and sidewalks shall be accessible to all people and to all modes of transportation so people can get where they need to go independently - to work, school, healthcare, shopping and places of worship. Properly designed infrastructure, inclusive of all modes, assists in placemaking and encourages redevelopment.

Green Streets

Green Streets address stormwater mitigation through better street design. Stormwater management in an urban area is a challenge given that there are so many impervious surfaces in roof tops, parking lots, and streets. There are few places for stormwater to go. Water, by its very nature, causes infrastructure decline and must be managed properly to extend the life of our streets investments. If we properly manage our stormwater we can stretch our dollars.

Higher intensity rain events are expected in the future. The Spring of 2013 provided a potential glimpse of what this future might look like when the Grand River crested past the city’s highest recorded flood level. Combined Sewer Overflow (CSO) work completed over the past 20 years has helped create capacity in the system, however, the system was designed to move water and nothing else. It is a series of pipes that connect to other pipes which directly channel water to the Grand River and its tributaries. In Grand Rapids, it only takes 15 to 30 minutes for contaminated rain and stormwater to reach the river.

⁸ P.A. 135 of 2010

Green infrastructure holds and manages stormwater where it falls. This approach provides multiple benefits for the infrastructure system and our community because it:

- Reduces downstream flows and opportunities for erosion;
- Alleviates strain on the system during peak rain events;
- Improves water quality by filtering trash and particulates before entering the river;
- Improves air quality by intercepting airborne particulates and provides shade for cooling;
- Provides aesthetic enhancement of the right-of-way with trees and plants – improving the pedestrian experience and attractiveness of an area for businesses.

City Initiatives that Support Green Infrastructure Investments

2013 Stormwater Master Plan Goals (selected)

- Protect human life, health and safety through stormwater management.
- Minimize the need for rescue and relief efforts associated with flooding.
- Reduce the level of pollutants discharged by the Grand Rapids Stormwater System.
- Ensure a functional drainage system that will not result in excessive maintenance costs.
- Encourage the use of best management practices to improve water quality.
- Encourage the reduction of existing flooding problems in conjunction with new development.
- Comply with Federal and State laws regarding stormwater discharges, floodplain management, and erosion and sediment control.

2011-2012 Green Infrastructure Portfolio Standard

Progression toward achieving reduction of stormwater volume by 1% per year.

2012 Green Grand Rapids Master Plan Update

The design approach to all city streets should include improved stormwater management, wherever possible. These “green street” strategies manage stormwater at its source and include, for example:

- Reducing paved area (by decreasing lane widths where possible).
- Using permeable pavement in alleys, and parking lanes.
- Landscaping areas parallel to the curb, in curb bumpouts, traffic islands or medians (can also be expanded and designed to capture and infiltrate runoff from streets and sidewalks).
- Additional street tree plantings will clean and absorb rainfall.

FY2011-2015 Sustainability Plan*

ENV 2.2 - Outcome: Improve the quality of the Grand River and its tributaries. The Grand River is the city’s single most precious natural resource. It provides a site for economic development and recreation, as well as important ecological processes that support fish populations, vegetation, wetlands, and birdlife. The Grand River and the areas surrounding it provide a natural method of stormwater containment during the spring thaw and significant rain events.

- Target 1: Achieve 100% compliance with NPDES permit requirements annually.
- Target 2: Achieve water quality index of 70 or higher on Grand River annually.
- Target 3: Achieve 100% compliance with Stormwater Pollution Prevention Initiative (SWPPI), Public Education Program (PEP), and Illicit Discharge Elimination Program (IDEP) permits annually.
- Target 6: Increase the number and square footage of green roofs within the city by June 30, 2015.
- Target 7: Reduce stormwater discharge by at least 50,000 gallons per rain event by June 30, 2013.
- Target 9: At least 5% of reconstructed streets, alleys, and City parking lots to be constructed of pervious or porous pavement by June 30, 2015.

** Additional targets were not necessarily identified as a stormwater issue although may have some stormwater impacts or benefits such as those dealing with tree canopy and the like.*

Recommendations of the Sustainable Streets Task Force

These recommendations provide a clear path to transform Grand Rapids' streets and rights-of-way into Vital Streets – streets that serve everyone, increase value to homes and businesses, create place and protect the natural resources of our community. Foundations for our vision are present in the City's [Master Plan](#), [Green Grand Rapids](#), the [Sustainability Plan](#) and in the [report of the Transformation Advisors](#).

We have the opportunity to make progressive changes to a broken system. Grand Rapids' ability to achieve desired economic, quality of life, and environmental outcomes are dependent upon how fully these recommendations are implemented.

Our Vision

City Streets and rights-of-way will be accessible, attractive, and safe, serving all people of our community, contributing to the livability of our neighborhoods and business districts and increasing economic opportunity to individuals, businesses, and new development.

Infrastructure assets will be maintained and well-managed, using a multi-faceted funding strategy and innovative approaches to preserve our investment.

Prosperity isn't free and never has been. A community's ability to build new things was once viewed as a measure of prosperity. The new paradigm is to view prosperity as having the ability to invest and improve existing assets. We need to responsibly take care of what we have. Effectively managing our infrastructure assets is only possible with community support. We believe that the citizens of Grand Rapids understand that investment in our streets is necessary. The time to invest is now.

Recommendation #1- Target Condition

Maintain 70% of streets in a "State of Good Repair" (either in Good or Fair condition) within the next 15 years.

Reaching 70% of our streets in a State of Good Repair within the next 15 years represents the best balance between the need for a quality street system and the amount of investment required. The Task Force determined that if we sought a higher condition target then other important community needs would be impaired. On the other hand, if we were to invest less, the conditions necessary to support the valued quality of life in our neighborhoods and business districts would not be realized.

Recommendation #2 – Total Investment

Invest \$22 million per year in public streets, sidewalks and rights-of-way.

Combined local and State investments in public streets, sidewalks and rights-of-way should equal \$22 million per year. Numerous scenarios and potential funding sources were tested by the Task Force to find the best approach that would achieve 70% streets in a “State of Good Repair” and implement other important priorities, such as sidewalks. The table below depicts the various funding sources that must be assembled to achieve a sustainable streets system. All of these sources are needed to properly fund an effective asset management program.

SOURCES	INVESTMENT
<ul style="list-style-type: none">• Current Major and Local Street Fund dollars already being invested in street capital and street rehabilitation.	\$ 3.4 million
<ul style="list-style-type: none">• Grants received through Grand Valley Metropolitan Council (our Metropolitan Planning Organization). An average of \$3 million over each of the last five years has been awarded. It is anticipated that revenues will continue at approximately this same level.	\$ 3.0 million
<ul style="list-style-type: none">• State investment – We have determined our recommendations relying on the State to invest at the level requested by the Governor, or \$1.2 billion annually statewide. This would provide approximately \$6 million annually to Grand Rapids.	\$ 6.0 million
<ul style="list-style-type: none">• Local investment –a gap of approximately \$9 million to be filled from local sources was identified.	\$ 9.0 million
TOTAL	\$21.4 million*
*\$22 million/yr. is needed. The recommended local investment source could provide additional amounts as our economy grows.	

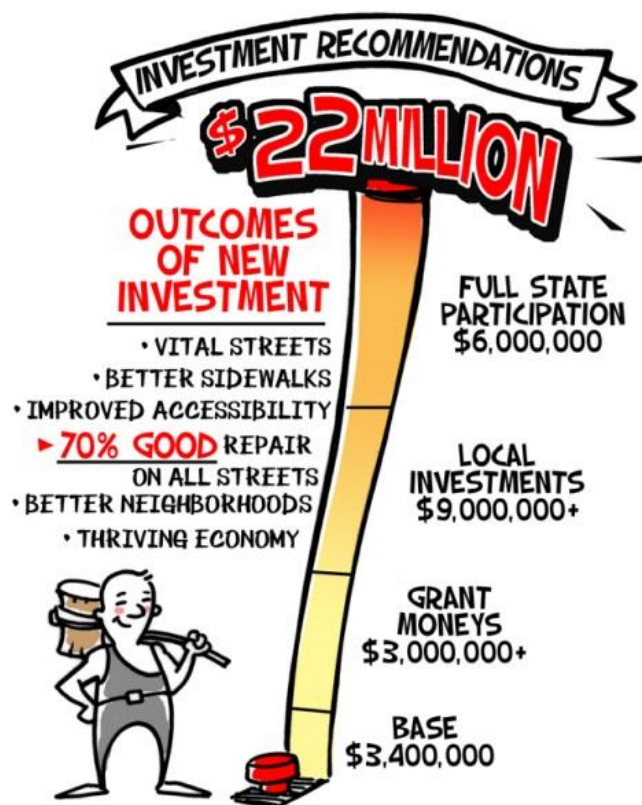
Recommendation #3 – Local Investment

Provide the opportunity for citizens to choose to continue the current income tax rate beyond June 30, 2015, for an additional 15 years and direct that 0.2% of funds be used only to invest in our street system, including sidewalks.

We are sensitive to the financial difficulties that some of our citizens have experienced, and may continue to experience, after the recession. In spite of this, many of these same citizens agreed that an additional investment in streets was necessary and encouraged us to continue our work. We believe that Grand Rapids is “house proud” – we take great pride in our ability to take care of ourselves and those around us. The economic and quality of life benefits derived from investing in our city are apparent when compared to other communities.

We recognize that our community also has its limits. In reviewing funding strategies, we desired to find a way to provide enough money to make significant improvements to streets assets, but to do it in a way that community investment would not be a burden. The Task Force is not recommending a tax increase. Instead, we recommend citizens be asked to continue their current income tax rate beyond June 30, 2015⁹, for an additional 15 years and dedicate that 0.2% to Grand Rapids’ street system, including sidewalks. This approach would provide \$9 million annually to properly manage our public streets and other assets within the right-of-way.

It is recommended that the City Commission schedule an election in May, 2014 to ask voters to support this tax renewal request. This election would allow for the continuation of the current income tax rate and avoid an out-of-cycle rate adjustment. We found that the cost for a special election was substantially less than the administrative costs that would be incurred to adjust rates within the second half of the year.



⁹ In 2010, the citizens of Grand Rapids agreed to allow the City time to transform operations and become sustainable. At that time they approved a five-year, 0.2% income tax increase with the intent that at the end of five years General Operating Fund revenues will equal or exceed General Operating Fund expenditures on an ongoing basis. Transformation funds have been used to support community policing, add an additional fire rescue squad, and transform city operations to become more effective and efficient.

Recommendation #4 - State and Federal Investment

Advocate to both State and Federal legislators for increased transportation investments at the local level.

Local investment alone is not sufficient to support our streets. The State of Michigan must be an investment partner. The State gas tax has not been increased since 1997. It is imperative that State legislators understand that local units of government have very few options to adequately support the maintenance and operation of the public's infrastructure assets. In Grand Rapids, we currently receive \$6.4 million per year for street operation and maintenance from the Gas and Weight tax and grants. An additional \$6 million is needed from the State in order to meet our Total Investment goal of \$22 million.

Governor Snyder proposed a transportation strategy that would raise an additional \$1.2 billion statewide per year to improve our streets. State legislators must step up and realize that our infrastructure is crumbling. The longer we wait to fix the problem the more we, and our children, will need to pay. The City has engaged, and will continue to engage, with State legislators to advocate for State transportation investment. Every City resident and business owner needs to do the same. The Legislature and Governor need to come to terms with the fact that their failure to invest threatens our economic future.

We recommend continued advocacy for State investment but that local investment should not be delayed. Grand Rapidians cannot wait for State legislative changes, a critical lesson learned from the experience of the 21st Century Infrastructure Task Force. Finally, opportunities should be taken to engage Federal legislators regarding the need for transportation investments on the national level as well.

Recommendation #5 - Accessibility

Ensure streets and sidewalks are accessible for everyone.

Many citizens, especially younger persons, prefer to use public transportation, bicycles or other modes of transportation. As baby boomers age, retirees and the elderly are finding they will need or want to park their vehicle and travel via alternative methods. The abandonment of a driver's license is oftentimes viewed as a loss of independence. For many, accessibility and

mobility are not just a convenience—they are a necessity. Some of the impediments to access include:

- bus stops with no sidewalks to reach them;
- sidewalks with no accessible curb cuts available for those confined to wheelchairs;
- obstacles in sidewalks;
- potholes in crosswalks; and
- many other things that many of us take for granted are obstacles that many people struggle with on a daily basis.

These obstacles can make it difficult or sometimes impossible to travel to the grocery store, to the physician, to work or to school.

Fewer motor vehicles on our streets decreases the amount of air pollution from emissions and is good for our environment and our health. Walking, biking and other physical activity blended in with daily life are simple way to reduce obesity and other chronic illnesses. Improved public health has real economic savings. Lower insurance premiums, less government resources dedicated to Medicare and Medicaid, and fewer doctor visits are possible by encouraging people to get out of their cars. Proper infrastructure is required, however, to get people to regularly walk, bike or use transit.



Recommendation #6 - Sidewalks

Investment in sidewalk repair and replacement should be the responsibility of the City.

Accessibility and mobility throughout our city hinges not only on a quality street system, but on a quality sidewalk system. The current Point-of-Sale program that requires property owners to repair or replace sidewalk during real estate transactions is not proactive asset management. We

worked with the City Engineer's Office to evaluate alternative solutions. Based on that work, we recommend that homeowners no longer be burdened with the cost of repairing or replacing portions of sidewalk abutting their property that are in need of repair. Removing this responsibility from the property owner would provide the following benefits:

- Property owners would save hundreds of dollars in repair costs;
- City staff can inspect / repair all sidewalks in a 15- year revolving cycle;
- 73 miles of sidewalk would be inspected annually;
- 250% increase in miles of sidewalk repaired annually;
- Continuous funding for ADA ramp installation would be provided; and
- Improved sidewalk and non-motorized connectivity by filling in missing gaps.

Recommendation #7 - Charter Amendment for Sidewalks

Amend the City Charter to remove the provision regarding property owner responsibility for repair and replacement of sidewalk fronting their property; sunset the current Point-of-Sale Program.

It is our recommendation that the Charter amendment be tie-barred to Recommendation #3, local investment, and be in effect only as long as the citizens of Grand Rapids agree to continue the 0.2% income tax dedicated for the street system, including sidewalks.

Better sidewalks, lower cost and better value are what these changes will provide. The City Charter currently requires property owners to pay the cost of repairing the sidewalks that front their property. This can be a costly expense – ranging from a few hundred to several thousand dollars. It is time for a change that will provide lower cost for property owners and better outcomes for all of us.

The recommended changes will allow the City to operate an efficient and systematic sidewalk program without the barrier of significant cost to property owners. This change will allow the City to reduce staff and almost triple the amount of sidewalk repaired each year. The City will also be able to accelerate installation of sidewalk ramps throughout the city.

Our recommendation includes investment in completing sidewalk connections and completion of the trail system when possible in addition to the sidewalk repair. It is expected that this will produce a more walkable and accessible community and will do so at a lower cost and a faster rate than would otherwise be possible.

Recommendation #8 - Transparency

Establish a citizen's oversight group to monitor performance of streets investments and progress toward Vital Streets; report to taxpayers on outcomes. Tax revenue raised through the continued 0.2% income tax should be deposited in a separate Sustainable Street Fund for maximum transparency.

A citizen's oversight group should be established. The role of the citizen's oversight group is recommended to include:

- Monitoring progress
- Monitoring activity and allocation of funds
- Ensuring revenue diversity, including investigation and provision of recommendations on new or emerging revenue sources
- Advocating for resources on the Federal, State, and regional levels
- Ensuring vision is being implemented, including that appropriate activities are undertaken to accomplish the vision of Complete Streets and Green Streets
- Ensuring adherence to asset management planning
- Ensuring equity throughout all areas of the city
- Ensuring annual reporting and dashboarding on progress/outcomes is available to citizens

Some Task Force members have indicated an interest in continuing involvement and participation on an oversight committee. Due to the time and energy members have spent in learning about our streets, various resource options, and asset management, it is recommended that Task Force members be given consideration for appointment to the oversight committee.

Recommendation #9 - Continuous Improvement

Continue to research and implement new methods for street maintenance and construction to ensure that best practices are being followed. Research and implement new methods of investment as they become available and are found to be acceptable and reliable funding sources.

One of our Guiding Principles is that “innovative practices, applications and materials will be continuously explored and tested to provide value to the community.” We expect technology to evolve over time with new methods for users to pay for consuming transportation resources

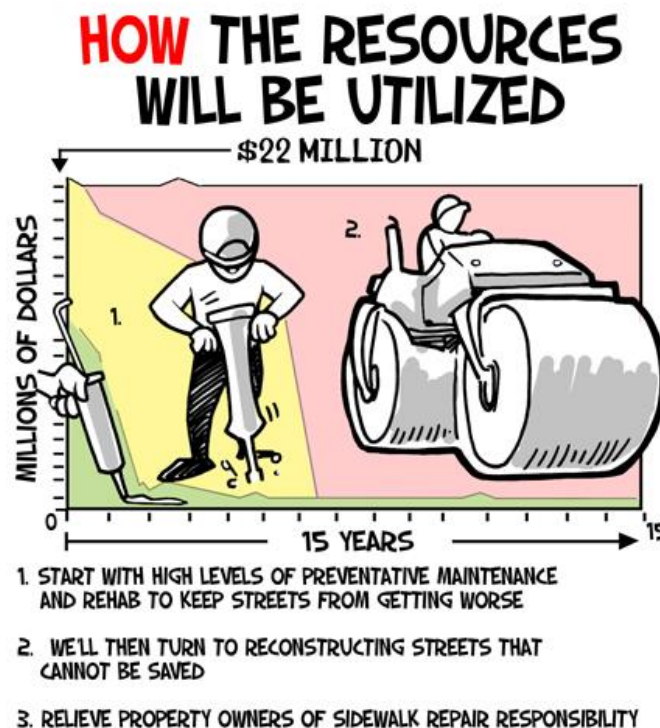
emerging and new technologies and best practices for street maintenance and construction being developed. We intend to continue to advocate for these improvements as they become available.

We were frustrated by the very limited number of near-term funding options available within the State of Michigan to support streets. A variety of tools are used in other states that have the potential to be effective here. Still more options, such as a Vehicle Miles Traveled tax, are being piloted. We encourage that a long-term view of potential funding options is continued to recognize future opportunities as they arise.

Recommendation #10 - Asset Management

Use a comprehensive Asset Management Program to manage street and sidewalk infrastructure investments.

A systematic, data-driven asset management approach using best practices is recommended in order to bring our street system, including sidewalks, to a State of Good Repair within 15 years. Providing the investment necessary for a balanced asset management program is essential to ensure that our desired outcomes are achieved. The City's approach to managing our street system must first include heavy early investments in preventive maintenance and rehabilitation. This will save those streets currently in the best condition and return those on the brink of Poor condition into a state of either Good or Fair condition. Then, those streets that cannot be saved would be reconstructed over a period of time.



Recommendation #11 - Green Infrastructure

Evaluate all streets recommended for improvement for the suitability of green infrastructure to manage stormwater. Green infrastructure should be implemented where site conditions allow, as defined in the City's Technical Reference Manual.

Green streets have proven to provide multiple benefits along the street right-of-way, as defined earlier in this report. Green infrastructure holds and manages stormwater where it falls – keeping it from going into gray infrastructure (pipes) and straight to the Grand River. Wherever possible, the use of green infrastructure such as trees, bioswales, porous pavement, and rain gardens should be integrated into street design. A minimum of 10% of all monies used for stormwater capital improvements should be devoted to green infrastructure.

Recommendation #12 - Partnerships

Partner, whenever practically feasible, with other agencies, non-profits and community groups to advance the vision and desired outcomes of the Sustainable Streets Task Force.

Grand Rapids is known for its success with both public/private and public/public partnerships. The evidence is all around us and continues to grow. The City's 2002 [Master Plan](#) helped formalize and accentuate the role of partnerships in our community and predicted that “collaboration among city departments, residents, property owners, businesses and institutions will be essential in bringing the [Master Plan's](#) recommendations to fruition. Both regional and community partnerships are needed.”

Partnerships have been essential to the City's investment in street infrastructure and will continue under this plan. Partners such as the Michigan Department of Transportation, Grand Valley Metropolitan Council, Downtown Development Authority, Brownfield Redevelopment Authority, Kent County Road Commission, Grand Rapids neighborhood and business districts, neighboring communities, and development partners and business owners who opt to pay special assessments for extra street features are all partners. By working together, we can leverage additional improvement to our street system. It all adds up.

Conclusion

It is time invest in our streets. Grand Rapidians are faced with one choice: maintain and rebuild our streets or do nothing. If we act, it is possible to improve our street system from 60% poor to 70% in a State of Good Repair over 15 years. If we do nothing, 90% of city streets will decline to a poor condition in ten short years. The City's street system is a vital asset which exceeds \$1 billion in value and is central to the region's transportation network.

Investing now will transform our city. A vision of Vital Streets – streets that serve everyone, increase value to homes and businesses, create place, and protect the natural resources of our community – can be realized by investing in our infrastructure. The vision's basis is found in the City's [Master Plan](#), [Green Grand Rapids](#), the [Sustainability Plan](#) and in the [report of the Transformation Advisors](#). The City's infrastructure is the foundation we leave for future generations to build on.

Our streets, sidewalks and other infrastructure within the public right-of-way must be able to support the various needs of neighborhoods, businesses, residents and visitors. The daily impacts of streets disinvestment can be felt in car repair bills, flat tires, traffic delay, pedestrian trails along the roadside and opinions about our community. In numerous public meetings Task Force members heard how our streets are not meeting citizen needs. It is within the community's control to take action.

The investment required to attain 70% of our streets in a State of Good Repair (either in Good or Fair condition) is approximately \$22 million per year over a 15-year period. This level of investment would be sufficient to include rebuilding our sidewalk system - allowing property owners to avoid hundreds of dollars in sidewalk repair costs. A voter-approved amendment to the City Charter will be needed to eliminate a provision that requires property owners pay for sidewalk repairs.

This report does not recommend a tax increase. Instead, citizens should be asked to continue their current income tax rate¹⁰ beyond June 30, 2015 for an additional 15 years and dedicate that 0.2% to Grand Rapids' street system, including sidewalks. This approach would provide \$9 million annually to properly manage our public streets and other assets within the right-of-way.

¹⁰ Task Force members have tracked with the City's Transformation Investment Plan; finding that significant progress has been made in eliminating the General Operating Fund (GOF) structural deficit. Research has shown that the City has made good use of the 2010 Income Tax increase to date. As a result of the transformational activities undertaken with this investment, the City is on schedule to meet ongoing operating expenses with available resources by June 30, 2015. This crucial step sets the stage for a comprehensive asset management approach that makes capital investments rather than funding operations. Local action to solve local problems has been the hallmark of transformation.

Asking voters to continue the current City Income Tax rate and extend it an additional 15 years is the best local funding option. There is no additional financial burden for citizens and the investment produces significant value for us all.

Grand Rapids citizens, however, cannot shoulder more than this amount of the total investment in streets and sidewalks. Our State partners need to step up. Pressure must be maintained on the State to enact a statewide transportation investment solution consistent with the dollar value of the Governor's plan to produce an additional \$6 million for Grand Rapids' streets. Having learned from the experience of the 21st Century Infrastructure Task Force in 2002, our community cannot wait any longer to see what others will do or nothing just might happen.

The problems of street condition and funding must be resolved now in order to rebuild and preserve our street and sidewalk systems, however, we also know we cannot stop looking long-term as the transportation landscape evolves. Citizens must continue to advocate for long-term change while using the tools that are available now to solve the immediate and pressing problem.

We have issued 12 specific recommendations that will move Grand Rapids' streets and sidewalks forward to a sustainable future. Every one of these recommendations is implementable in the near-term. Given the extent to which our transportation system has suffered from disinvestment, it is strongly recommended that there be little delay in moving to action. A special election should be held in May, 2014. The cost of a special election is less than the cost of an out-of-cycle adjustment to income tax rates.

The evidence is overwhelming. It is time to invest.

APPENDIX

APPENDIX A

Definitions

A3 - The A3 Report is a Lean, Toyota-pioneered practice of getting the problem, the analysis, the corrective actions, and the action plan down on a single sheet of large (A3) paper, often with the use of graphics. A3 paper is the international term for a large sheet of paper, roughly equivalent to the 11-by-17-inch U.S. sheet.

ADA (Americans with Disabilities Act) - [The Americans with Disabilities Act \(ADA\)](#) prohibits discrimination against people with disabilities in employment, transportation, public accommodation, communications, and governmental activities. The ADA also establishes requirements for telecommunications relay services.

Asset Management - The combination of management, financial, economic, engineering, and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner. It includes the management of the whole life cycle (design, construction, commissioning, operating, maintaining, repairing, modifying, replacing and decommissioning/disposal) of physical and infrastructure assets.

CSO (Combined Sewer Overflow) - These occur when a sanitary sewer becomes overloaded due to stormwater. The sanitary sewer overflows to a nearby storm sewer and the untreated mixture of stormwater and sanitary sewage overflows to the Grand River. Grand Rapids has been a leader in the State of Michigan in eliminating combined sewer overflow (CSO). Combined Sewers were a common construction practice until the 1920s. In the late 1980s the City of Grand Rapids embarked on a comprehensive program to eliminate all combined sewer overflows (CSO) in the City. The result of these efforts has been a 99.8% + reduction in CSOs to date with less combined sewer overflow every year. There were 59 CSO locations prior to corrective work started in the early 1990s. Today, only 4 need to be completed.

Complete Streets – (*see also* Vital Streets) - A system of streets . . . planned, designed, and constructed to provide appropriate access to all legal users in a manner that promotes safe and efficient movement of people, and goods whether by car, truck, transit, assistive device, foot or bicycle.”¹¹ All users are defined to include:

- Pedestrians
- Bicyclists
- Transit users
- Motorists
- Trucks
- People with various abilities
- Children
- Elderly

¹¹ P.A. 135 of 2010

Major, FAU (Federal Aid Urban) Street- A street in an urban area eligible for federal assistance under Title 23 of the U.S. Code. These Major Streets serve regional assets and are essential for getting to work or home, and traveling to and from business districts and commerce. They move more people, visitors and goods than other streets.

Major, Non-FAU (Federal Aid Urban) Street - A Major or Collector street not eligible for Federal Aid. Non-FAU Major Streets serve as critical connectors between FAU Streets and Local Streets.

Neighborhood/Residential Street (sometimes considered “local” streets) – These streets provide access to property and host our homes. They support our quality of life and make a neighborhood better—or worse. Over 2/3 of Grand Rapids’ total street system is made up of neighborhood or residential streets (384 miles out of a total 588 miles).

PASER (PAvement Surface Evaluation and Rating) – A system for visually rating the surface condition of a pavement on a scale of 1 to 10, with 1 being a pavement in a failed condition and 10 being a pavement in excellent condition. The PASER system is the preferred method for Michigan agencies to rate their road pavements. Grand Valley Metro Council collects PASER information on Grand Rapids and the region’s pavement conditions provides timely information to assist jurisdictions in making wise investment decisions.



PASER RATING SCALE:

10 - No Treatment Required	5 - Sealcoat/Non-Structural Overlay less than 2 inches
9 - No Treatment Required	4 - Structural Overlay, 2 inches or more
8 - No Treatment Required	3 - Patching with Major Overlay
7 - Routine Crack Filling	2 - Reconstruction with Extensive Base Repairs
6 - Sealcoat	1 - Total Reconstruction

State of Good Repair – Streets in Grand Rapids will be determined to be in a “state of good repair” if their PASER rating places them in either good or fair condition—rated from a 4 through a 10 on the PASER scale.

Vital Streets – (*see also* Complete Streets) – The Sustainable Streets Task Force determined that Grand Rapids’ needed a Vital Street system, including sidewalks. Their vision is to provide accessibility and mobility for all in a system that moves people, not just vehicles.

APPENDIX B

21st Century Infrastructure Task Force Report – Executive Study

EXECUTIVE SUMMARY - 2002

The 21st Century Infrastructure Task Force was charged with the task of creating a strategy for assessing the condition of the City's Street system; developing construction and maintenance standards required to systematically achieve an improved system and developing a plan to finance the required investment (See City Commission Resolutions in Appendix A).

The 30 members appointed to the Task Force by the City Commission established three working teams.

Team I and Team II were charged to establish maintenance and construction standards, develop the construction and maintenance methods required to achieve the desired quality of street infrastructure and calculate the investment required to create a quality street system.

Team III was charged with the task of identifying resources to provide financing for the investment required over time to return the City's street infrastructure to acceptable standards.

Research indicates that an investment of up to \$100 million will be required to meet community standards. Meeting community standards over 20 years would require annual investments of up to \$11.5 million. Meeting community standards over 15 years would require annual investments of up to \$12.5 million. Current investments in construction and maintenance total about \$8 million per year. The \$4 million gap in fiscal resources explains the gap in desired street quality.

Infrastructure is the backbone of civic life. Residents and businesses depend on the support provided by such basic systems as sewer, water, storm drainage and street networks. The City's street network totals nearly 600 miles of major and local streets and represents about 20% of the County's transportation network. City streets connect to the regional network and form the backbone of our region's economy. In fact, the City's street system is the core of this system. There is a growing recognition at the state and local level that transportation solutions require a coordinated mix of local, regional and state solutions. Each has a key role to play and must engage in crafting a solution.

The City previously established a framework to guide development, redevelopment and maintenance of the street system, known as the Street Classification Policy. This Plan facilitates investment decisions by suggesting design standards based upon their location. The Plan recognizes that streets serve many functions—only one of which is moving traffic. It also acknowledges that design elements are critical to the success of residential and business neighborhoods. The 21st Century Infrastructure Task Force built upon this system when developing their recommendations.

The City of Grand Rapids has excelled at planning, operating, maintaining and financing sewer and water systems. Both systems are supported by enterprise funds that have as their foundation an innovative user charge system that establishes rates on an annual basis. This user charge system has not failed, even under severe tests, to provide adequate resources.

In addition, the City has invested almost \$200 million to eliminate combined sewers (CSO) in Phase I of its CSO Elimination Program. In the process, sewer, water, storm drainage and street infrastructure in an area of 3.1 square miles on the City's west side has been reconstructed. This work has eliminated 96% of the City's CSO discharge. Another \$100 million will be invested over the next 17 years to eliminate CSO discharges on the City's East Side.

The City's street system has benefited and will continue to benefit from these investments in underground utilities. This relationship is planned, and its execution helps to significantly stretch very limited Street Fund dollars. The cost estimate of \$100 million anticipates a reduction in the amount required from Street Fund sources due to the \$9 million value of work to be done in conjunction with the East Side CSO Project.

The Street Fund has not been as robust as the Water and Sewer Funds. Where the Water and Sewer Systems benefit from an annual rate study that is controlled locally, the Street Fund languishes with an irregular source of revenue.

State Gas and Weight Tax payments make up approximately 71% of the Street Fund's annual revenue. The State gas tax rate was increased in 1983 and not again until 1997. While the number of vehicles registered and miles traveled increased, revenues were relatively stagnant and in no way kept pace with demands evidenced by a crumbling state and local street infrastructure. We are entering another period of State resource stagnation due to inflation since 1997 and diversion of Motor Vehicle Transportation Funds (MTF) to State General Fund uses.

The City has invested the new revenues resulting from the 1997 State Gas Tax increase directly into street reconstruction projects. Budgeting changes have directed more Street Fund resources to capital investments. Recognizing that this level of investment was still not sufficient, the Street Financing Priority Team, consisting of City Commissioners and Staff, recommended a significant and continuing General Operating Fund (GOF) subsidy to the Street Fund. The City Commission approved this recommendation and, in 1999, approved using the subsidy to support a \$9 million Transportation Bond issue that has improved City street conditions.

The combination of new Gas and Weight Tax receipts and a consistent GOF subsidy has made a perceptible difference in the condition of streets but has still fallen short of the level of investment required to recover from years of forced disinvestment. An additional level of investment will be required if additional progress is to be made.

The Task Force has completed a condition assessment of the City's street system. It has researched maintenance and construction methods and has determined how to achieve the desired level of quality. It has investigated past and present financial strategies and inspected alternative models in an effort to accumulate the resources needed.

The Task Force makes these recommendations based upon its research:

- That an Asset Management system be developed to guide investments in street infrastructure.
- That an evolving “mix of fixes” be utilized to upgrade and maintain the street system and that the mix be based upon objective condition assessment.
- That, while maintenance and construction methods now used by the City have passed the examination of Team I and II, an evaluation by an engineering consultant should be completed for maintenance operations.
- That the City increase inspection and adjustment of utility castings and inspection and repair of utility trenches to maintain the rideability of our streets.
- That a process of continuing education and evaluation of emerging practices be implemented.
- That options be developed and evaluated that would involve policy decisions to implement.
- That a maintenance and capital plan of approximately \$12.5 million annually be funded in order to upgrade and maintain the street system.
- That the General Fund Subsidy of the Street Fund be increased over 5 years to the level of 25% of Gas and Weight Tax Receipts.
- That amendments be sought to Act 51 to improve the flexibility of the use of state funds and conserve local resources.
- That voter approval of a county-wide license surcharge be sought.
- That maintenance of the existing regional street system be prioritized over “expand- and-improve” projects by the Metropolitan Planning Organization (MPO).
- That development approval requirements be reviewed to increase opportunities for improving the street system.
- That if the other steps noted above are not successful or do not produce the required \$4 million per year in additional resources, a voter approved increase in the City income tax of up to 0.1% be pursued.

The sections that follow will describe the work of the Task Force and its recommendations in detail.

APPENDIX C

Transformation Advisors Report – Executive Summary

EXECUTIVE SUMMARY – 2/22/11

In March, 2010 the Transformation Advisors was formed; we are a collective of dedicated citizens that have demonstrated vision in our work and passion for our community. We are also strongly committed to creating a successful and sustainable future for Grand Rapids. This report establishes a baseline assessment of the City's primary fiscal challenges, calls attention to our community's most significant challenges, identifies principles for success, and recommends next steps for implementation.

Achieving a financially sound budget that sustains the important values and visions of our community will be extremely difficult, but this work is absolutely necessary for our community's prosperity. The City of Grand Rapids must become a more nimble organization unburdened by legacy costs and focused on systemic change if the outcomes required by our community, as we know them, are to endure. We believe that the following areas should receive immediate attention:

Address the Structural Deficit: Costly pension and unfunded retiree healthcare obligations have contributed to the creation of a structural imbalance that will reduce services across all levels of City government and impair the ability of the City to address important community outcomes. City management and employees have made significant progress on reducing and controlling the costs of retiree health care. Now the annual required contribution for retiree health care must be funded to consolidate these important gains. The cost of benefits for future retirees and fringe benefits for current employees must become consistent with those of the private and nonprofit sectors.

Reform Public Safety: Following current best management practices will not be enough to prevent future cuts in staff or services for the two largest City departments. Police and fire comprise 63% of the General Operating Fund budget. Entirely new models of service delivery that keep the community safe and produce the same, or better, outcomes are essential. Data and information sharing must be a high priority to understand and modernize these departments in order to preserve our community's safety and capture savings for other valued community priorities. We support consolidation of police and fire services with local partner communities.

Invest in Streets and Infrastructure: Deferred investment and disinvestment in our physical infrastructure cannot continue. Revenues must be increased to pay for maintenance and reconstruction of our community's streets, alleys, and bridges. The State of Michigan should be encouraged to increase the state gas tax or, failing that, a dedicated local tax proposal should be examined to ensure proper maintenance and management to avoid exponentially higher replacement costs. Following a Complete Streets strategy so that all citizens have access to meet daily needs by bike, car, walking, or transit is important. Neighborhood infrastructure assets, such as housing stock and streetscapes, are the foundation of our community. Investment is necessary to prevent deterioration of our infrastructure, encourage economic development activities, and position our citizens and city for the future.

Focus on Quality of Life: A comprehensive strategy for improved parks and green space, great neighborhoods, crime prevention, recreation, and culture must be devised and implemented to position our community for a successful future. It is important to constantly examine and concentrate on these issues to

discover consolidation opportunities, public/private partnerships, and new methods of service delivery. Our city's ability to attract and retain residents, workers, and businesses over time will rely heavily on quality of life as the economy continues to shift to knowledge-based industries.

Decision-making must be outcomes-based for measurable success. A focus on rebalancing existing resources must be made first, with an understanding of the inherent trade-offs that will be made in serving the public. Existing resources such as the City's Master Plan, Green Grand Rapids, and Sustainability Plan provide guidance on priorities. The City's fiscal capacity to invest in and maintain public infrastructure and provide quality of life services is determined by its economic health. Continued poor health of our City's finances will assuredly deter our community's ability to maintain or encourage investment in the future without intentional and immediate bold action. We believe these recommendations are the path to a sustainable future, however, we cannot emphasize enough that time is of the essence.

APPENDIX D

Condition Examples – PASER 10 & PASER 9

PASER/PCI Rating Photo Examples.
PCI 95-100 - PASER 10



Patterson – North of 28th Street



Monroe – North of Leonard

PCI 90-94 –PASER 9



Baldwin Extension – West of I-196



Balsam – North of Rosewood

APPENDIX D

Condition Examples – PASER 8 & PASER 7

PCI 85-89 - PASER 8



M-6 – East of US-131



36th Street East of East Paris

PCI 79-84 - PASER 7



Leonard Street – East of Remembrance



Market Ave – East of Freeman

APPENDIX D

Condition Examples – PASER 6 & PASER 5

PCI 71-78 - PASER 6



East Beltline Ave – South of Burton



29th Street – West of East Beltline

PCI – 65-70 - PASER 5



East Beltline Ave – South of Michigan



Woodworth Ave – East of Coit

APPENDIX D

Condition Examples – PASER 4 & PASER 3

PCI 46-64 - PASER 4



Burton Street – Near US-131



Belmont Ave – North of Rogue River

PCI 31-45 - PASER 3



Chicago Drive – West of 32nd



14th Avenue – South of 44th Street

APPENDIX D

Condition Examples – PASER 2 & PASER 1

PCI 16 – 30 - PASER 2



Century Avenue North of Burton

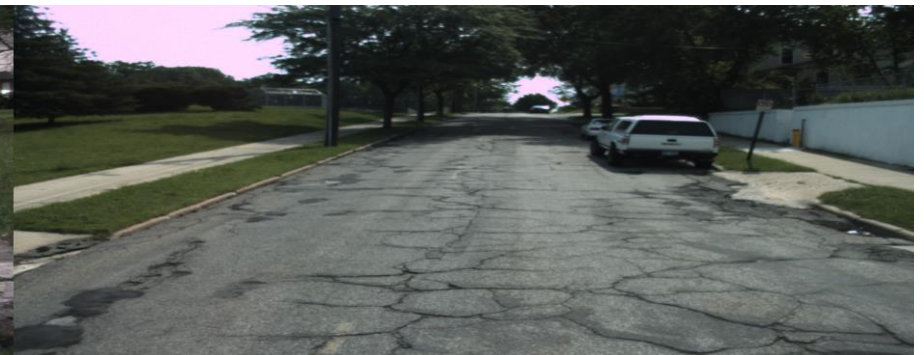


Lakeside Drive – South of Robinson

PCI 1 – 15 - PASER 1



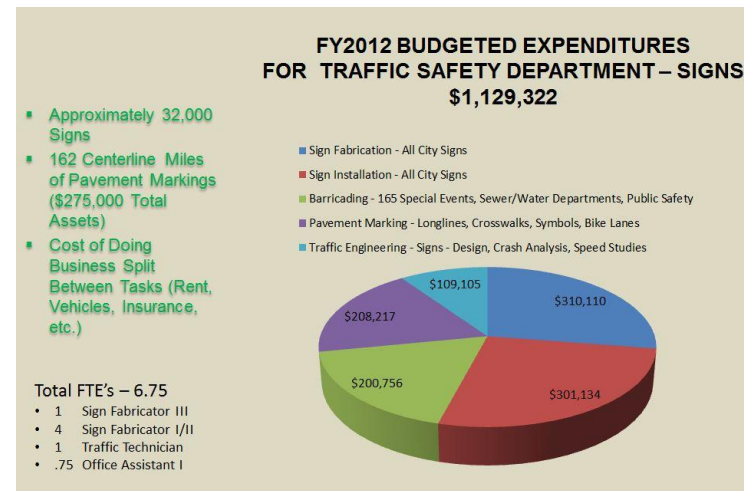
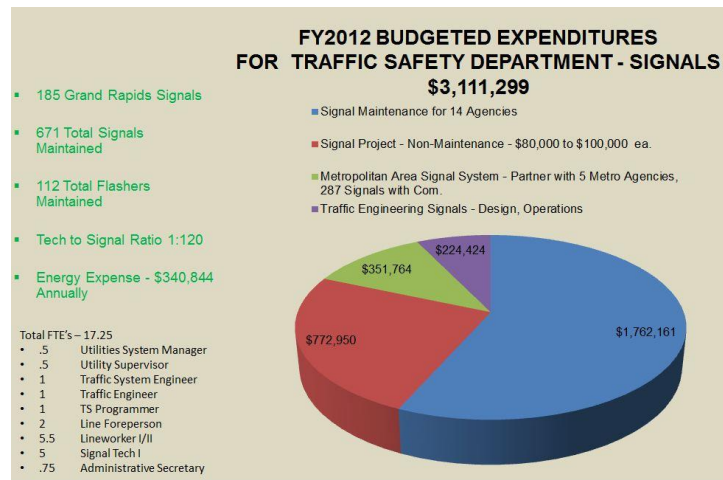
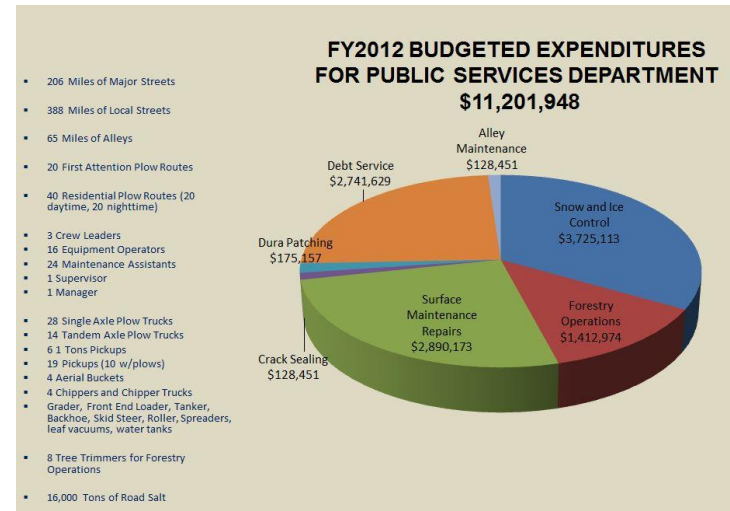
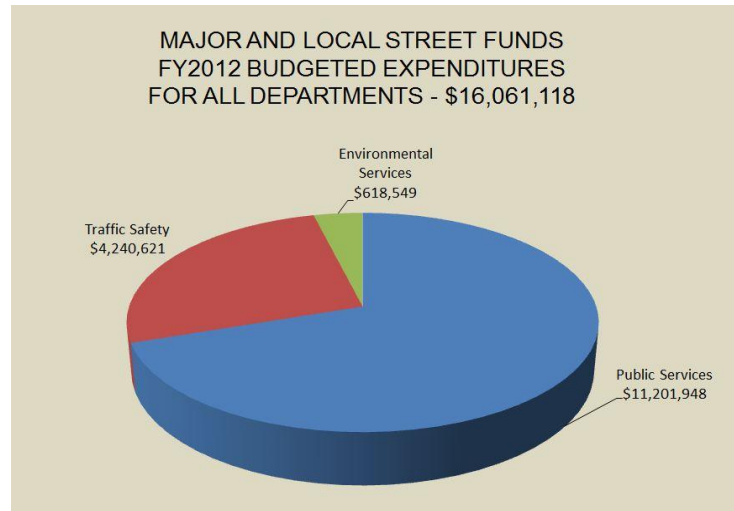
Seward – South of Richmond



Sweet Street – East of Plainfield (2008)

APPENDIX E

Review of Target and Investment Options – Current Investment / Major and Local Streets Funding



APPENDIX E

Review of Target and Investment Options – Current Condition

CURRENT CONDITION OF OUR STREETS

Federal Aid Urban (FAU) (Major Streets for which the City receives grant funding)

There are 156 miles of FAU streets in the City.

- 62%, or 96 miles are in Poor condition
- 21% or 32 miles are in Fair condition
- 17% or 28 miles are in Good condition

Non-Federal Aid Urban (Non-FAU) (Major streets for which the City does not receive grants)

There are 48 miles of Non-FAU Streets in the City.

- 69% or 33 miles are in poor condition
- 21% or 10 miles are in Fair condition
- 10% or 5 miles are in Good condition

Local Streets (our neighborhood or residential streets)

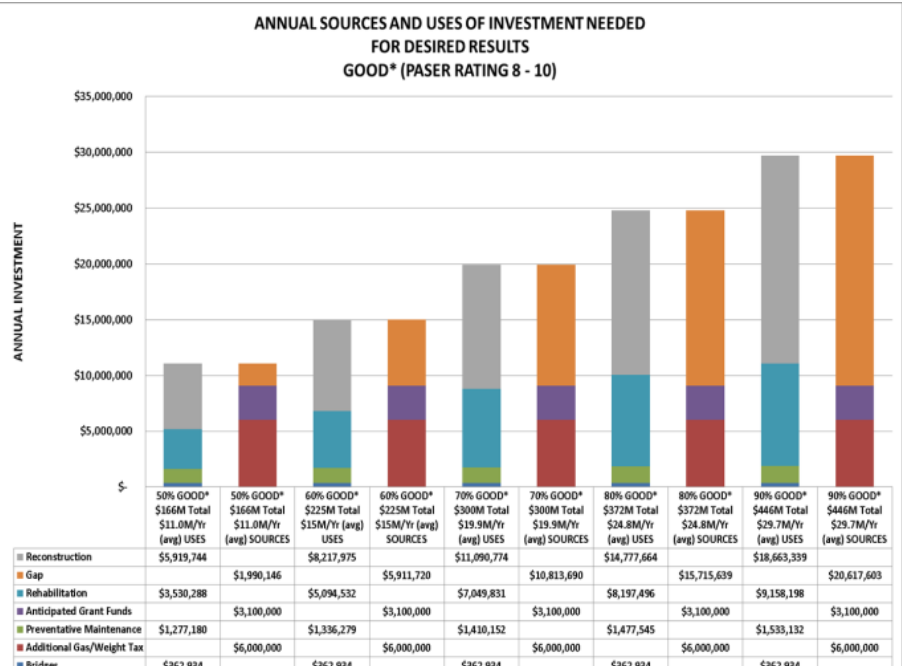
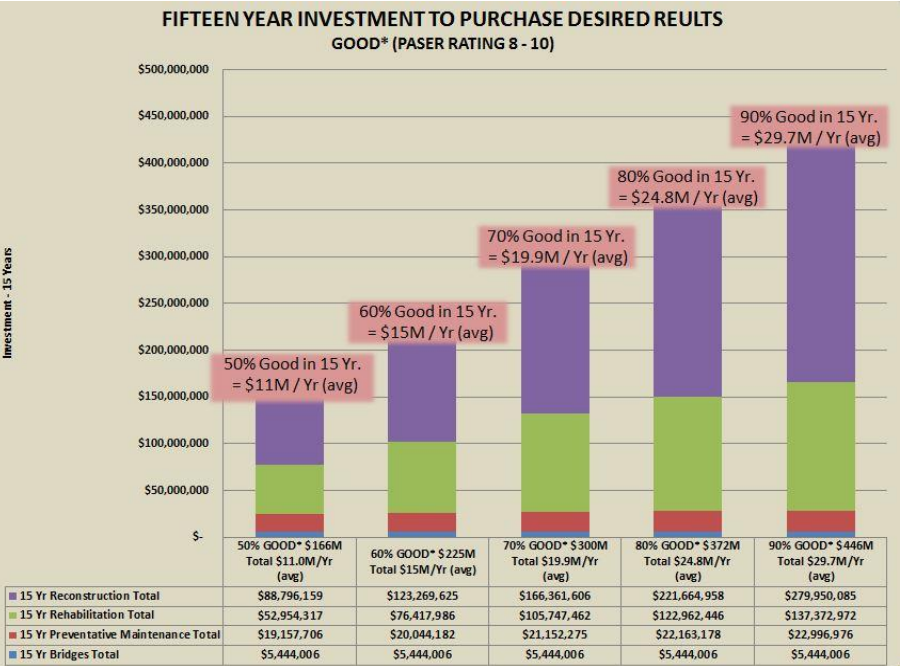
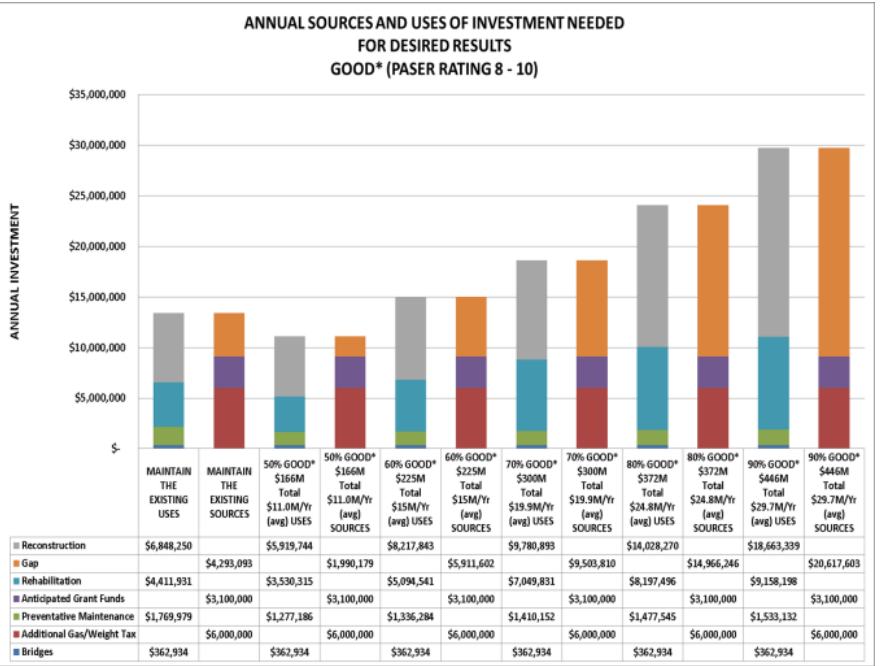
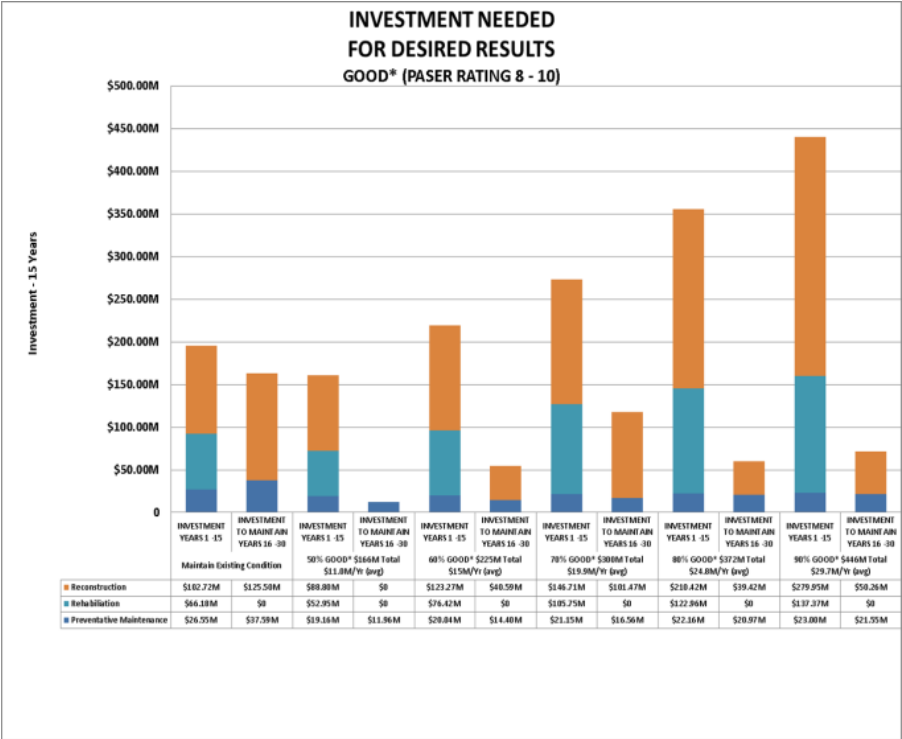
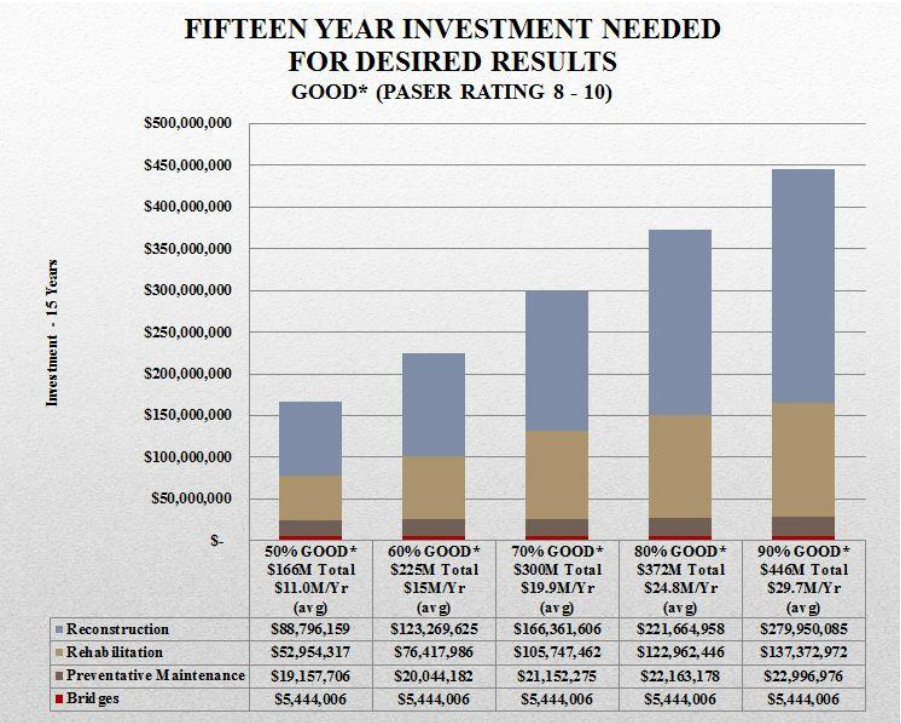
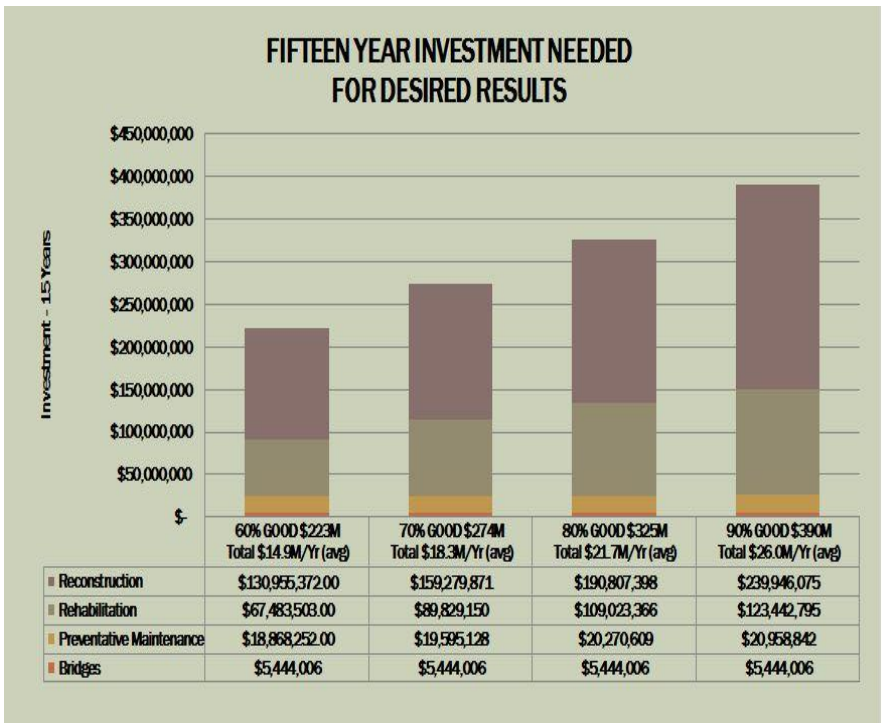
There are 384 miles of Local streets in the City.

- 63% or 242 miles are in Poor condition
- 33% or 125 miles are in Fair condition
- 4% or 17 miles are in Good condition

APPENDIX E

Review of Target and Investment Options

Below are various options we reviewed for targets and investment periods. Different scenarios such as reaching a percentage of good streets versus reaching a percentage of good plus fair streets were looked at as well as spreading the cost over 30 years rather than 15 years.



APPENDIX E

Review of Target and Investment Options – Final Scenarios

		ANNUAL INVESTMENT	15 YEAR INVESTMENT					STATE OF GOOD REPAIR AT YEAR 15 (GOOD + FAIR)			
	SCENARIO		LOCAL 384 MILES	MAJOR NON-FAU 48 MILES	FAU 157 MILES	GRANTS	TOTAL 589 MILES	LOCAL 384 MILES	MAJOR NON-FAU 48 MILES	FAU 157 MILES	TOTAL 589 MILES
1	<u>FUNDING:</u> Current Funding with no new investment. <u>ALLOCATION:</u> Throughout the system based on mileage. <u>GRANT FUNDING:</u> Where RH/RC is recommended in analysis, allocate to FAU streets (first).	\$ 3,483,608	\$29.81M	\$3.66M	\$19.02M	\$7.09M	\$52.50M	33.9%	34.3%	43.3%	35.9%
2	<u>FUNDING:</u> Current funding with no new investment. <u>ALLOCATION:</u> Maximize grant funding for FAU to \$3M. Prorate remaining PM funds to Major Non-FAU and Local streets by mileage. <u>GRANT FUNDING:</u> Where RH/RC is recommended in analysis, allocate to FAU streets (first).	\$ 3,483,608	\$2.37M	\$321K	\$88.36M	\$45.59M	\$91.25M	13.0%	15.8%	66.9%	27.6%
3	<u>FUNDING:</u> Current Funding with no new investment. <u>ALLOCATION:</u> Optimize all funding to Local first. <u>GRANT FUNDING:</u> No grant (STPU) funding available	\$ 3,483,608	\$47.01M	0	0	0	\$47.01M	44.9%	0.0%	0.7%	29.4%
4	<u>FUNDING:</u> Current Funding with no new investment. <u>ALLOCATION:</u> Optimize all funding with 75% Major-25% Local. <u>GRANT FUNDING:</u> Where RH/RC is recommended in analysis, allocate to FAU streets (first).	\$ 3,483,608	\$11.22M	\$7.96M	\$42.38M	\$15.91M	\$61.55M	23.4%	41.4%	51.1%	32.3%
5	<u>FUNDING:</u> Current Funding with no new investment. <u>ALLOCATION:</u> Optimize all funding with 50% Major-50% Local. <u>GRANT FUNDING:</u> Where RH/RC is recommended in analysis, allocate to FAU streets (first).	\$ 3,483,608	\$22.38M	\$5.30M	\$31.90M	\$14.76M	\$59.77M	32.4%	35.1%	49.3%	37.1%
6	<u>FUNDING:</u> Current Funding with an additional \$6M in new State investment. <u>ALLOCATION:</u> Throughout the system based on mileage. <u>GRANT FUNDING:</u> Where RH/RC is recommended in analysis, allocate to FAU streets (first).	\$ 9,483,608	\$80.36M	\$10.02M	\$60.07M	\$27.37M	\$150.45M	48.6%	43.5%	63.5%	52.2%
7	<u>FUNDING:</u> Current Funding with an additional \$6M in new State investment. <u>ALLOCATION:</u> Maximize grant funding for FAU to \$3M. Prorate PM funds of \$483,608 to FAU (26.7%), Major Non-FAU (8.1%) and Local streets (\$5.2%) by mileage. <u>GRANT FUNDING:</u> Where RH/RC is recommended in analysis, allocate to FAU streets (first).	\$ 9,483,608	\$54.84M	\$6.80M	\$100.22M	\$45.00M	\$161.86M	41.2%	37.4%	76.2%	50.2%
8	<u>FUNDING:</u> Current Funding with an additional \$6M in new State investment. <u>ALLOCATION:</u> Optimize all funding to Local first. <u>GRANT FUNDING:</u> No grant (STPU) funding available	\$ 9,483,608	\$123.18M	0	0	0	\$123.18M	61.5%	0.0%	0.7%	40.3%
9	<u>FUNDING:</u> Current Funding with an additional \$6M in new State investment. <u>ALLOCATION:</u> Optimize all funding with 75% Major-25% Local. <u>GRANT FUNDING:</u> Where RH/RC is recommended in analysis, allocate to FAU streets (first).	\$ 9,483,608	\$30.63M	\$21.37M	\$112.90M	\$45.00M	\$164.91M	34.2%	61.2%	88.3%	50.8%
10	<u>FUNDING:</u> Current Funding with an additional \$6M in new State investment. <u>ALLOCATION:</u> Optimize all funding with 50% Major-50% Local. <u>GRANT FUNDING:</u> Where RH/RC is recommended in analysis, allocate to FAU streets (first).	\$ 9,483,608	\$62.92M	\$14.60M	\$84.44M	\$45.00M	\$161.96M	43.4%	50.6%	75.4%	52.5%

APPENDIX E

Review of Target and Investment Options – Preferred Scenarios

		ANNUAL INVESTMENT	15 YEAR INVESTMENT				STATE OF GOOD REPAIR AT YEAR 15 (GOOD + FAIR)				
	SCENARIO		LOCAL 384 MILES	MAJOR NON-FAU 48 MILES	FAU 157 MILES	GRANTS	TOTAL 589 MILES	LOCAL 384 MILES	MAJOR NON-FAU 48 MILES	FAU 157 MIL ES	TOTAL 589 MILES
4	FUNDING: \$1.88 million Streets Capital, \$175,157 Duro Patching, \$128,451 Crack Sealing, \$900,000 for Asphalt Overlay and \$400,000 for Cope Seals (part of the Surface Maintenance Repair \$2,890,173 in FY2012). ALLOCATION: Optimize all funding with 75% Major-25% Local. Prorate Major portion to FAU and Non-FAU. Use 5% (\$175,000) for preservation/maintenance of bridges. GRANT FUNDING: Include in analysis where RHRC is recommended for FAU streets.	\$ 3,309,428	\$10.66M	\$7.54M	\$43.62M	\$19.21M	\$61.92M	22.9%	38.7%	54.2%	32.6%
4 to 60%	FUNDING: Amount needed to reach 60% State of Good Repair (Good + Fair) in <i>Local, Non-FAU Major, and FAU Streets</i> from the \$3,309,428 allocated by 75% Major-25% Local.		\$155.35M	\$25.05M	\$61.05M	\$27.20M	\$241.45M	60.0%	60.0%	60.1%	60.0%
4 to 70%	FUNDING: Amount needed to reach 70% State of Good Repair (Good + Fair) in <i>Local, Non-FAU Major, and FAU Streets</i> from the \$3,309,428 allocated by 75% Major-25% Local.		\$224.26M	\$35.66M	\$90.94M	\$42.64M	\$350.86M	70.0%	70.0%	70.0%	70.0%
4 to 80%	FUNDING: Amount needed to reach 80% State of Good Repair (Good + Fair) in <i>Local, Non-FAU Major, and FAU Streets</i> from the \$3,309,428 allocated by 75% Major-25% Local.		\$293.17M	\$45.86M	\$120.83M	\$45.00M	\$459.86M	80.0%	79.9%	80.0%	80.0%
4 to 90%	FUNDING: Amount needed to reach 90% State of Good Repair (Good + Fair) in <i>Local, Non-FAU Major, and FAU Streets</i> from the \$3,309,428 allocated by 75% Major-25% Local.		\$363.05M	\$55.68M	\$162.89M	\$45.00M	\$581.63M	90.0%	90.0%	90.0%	90.0%
4 to 100%	FUNDING: Amount needed to reach 100% State of Good Repair (Good + Fair) in <i>Local, Non-FAU Major, and FAU Streets</i> from the \$3,309,428 allocated by 75% Major-25% Local.		\$363.05M	\$55.68M	\$162.89M	\$45.00M	\$581.63M	90.0%	90.0%	90.0%	90.0%
4 to 100% for Locals, 70% for FAU and Non-FAU Majors	FUNDING: Amount needed to reach 100% State of Good Repair (Good + Fair) in <i>Local</i> and 70% State of Good Repair (Good + Fair) in <i>Non-FAU Major and FAU Streets</i> from the \$3,309,428 allocated by 75% Major-25% Local.		\$389.70M	\$35.66M	\$90.94M	\$42.64M	\$516.30M	100.0%	70.0%	70.0%	89.6%

APPENDIX E

Review of Target and Investment Options – Preferred Scenarios

		ANNUAL INVESTMENT	15 YEAR INVESTMENT				STATE OF GOOD REPAIR AT YEAR 15 (GOOD + FAIR)				
	SCENARIO		LOCAL 384 MILES	MAJOR NON-FAU 48 MILES	FAU 157 MILES	GRANTS	TOTAL 589 MILES	LOCAL 384 MILES	MAJOR NON-FAU 48 MILES	FAU 157 MIL ES	TOTAL 589 MILES
9	FUNDING: \$1.88 million Streets Capital, \$175,157 Dura Patching, \$128,451 Crack Sealing, \$900,000 for Asphalt Overlay and \$400,000 for Cope Seal (part of the Surface Maintenance Repair \$2,890,173 in FY2012) and an additional State investment of \$6M ALLOCATION: Optimize all funding with 75% Major-25% Local. Prorate Major portion to FAU and Non-FAU. Use 5% (\$475,000) for preservation/restoration of bridges. GRANT FUNDING: Include in analysis where RHRC is recommended for FAU streets.	\$ 9,009,428	\$30.63M	\$21.37M	\$112.90M	\$45.00M	\$164.91M	34.2%	61.2%	88.3%	50.8%
9 to 60%	FUNDING: Amount needed to reach 60% State of Good Repair (Good + Fair) in <i>Local, Non-FAU Major, and FAU Streets</i> from the \$9,009,428 allocated by 75% Major-25% Local.		\$130.26M	\$21.37M	\$112.90M	\$45.00M	\$264.54M	59.9%	61.2%	88.3%	67.6%
9 to 70%	FUNDING: Amount needed to reach 70% State of Good Repair (Good + Fair) in <i>Local, Non-FAU Major, and FAU Streets</i> from the \$9,009,428 allocated by 75% Major-25% Local.		\$199.69M	\$29.75M	\$112.90M	\$45.00M	\$342.35M	70.0%	70.0%	88.3%	74.9%
9 to 80%	FUNDING: Amount needed to reach 80% State of Good Repair (Good + Fair) in <i>Local, Non-FAU Major, and FAU Streets</i> from the \$9,009,428 allocated by 75% Major-25% Local.		\$268.46M	\$39.23M	\$112.90M	\$45.00M	\$420.59M	80.0%	80.0%	88.3%	82.2%
9 to 90%	FUNDING: Amount needed to reach 90% State of Good Repair (Good + Fair) in <i>Local, Non-FAU Major, and FAU Streets</i> from the \$9,009,428 allocated by 75% Major-25% Local.		\$354.45M	\$48.84M	\$156.19M	\$45.00M	\$559.47M	90.0%	90.0%	90.0%	90.0%
9 to 100%	FUNDING: Amount needed to reach 100% State of Good Repair (Good + Fair) in <i>Local, Non-FAU Major, and FAU Streets</i> from the \$9,009,428 allocated by 75% Major-25% Local.		\$375.08M	\$57.80M	\$162.12M	\$45.00M	\$595.00M	99.9%	99.9%	99.9%	99.9%
9 to 100% for Locals, 70% for FAU and Non-FAU Majors	FUNDING: Amount needed to reach 100% State of Good Repair (Good + Fair) in <i>Local</i> and 70% State of Good Repair (Good + Fair) in <i>Non-FAU Major and FAU Streets</i> from the \$9,009,428 allocated by 75% Major-25% Local.		\$375.08M	\$29.75M	\$112.90M	\$45.00M	\$517.74M	99.9%	70.0%	88.3%	94.4%

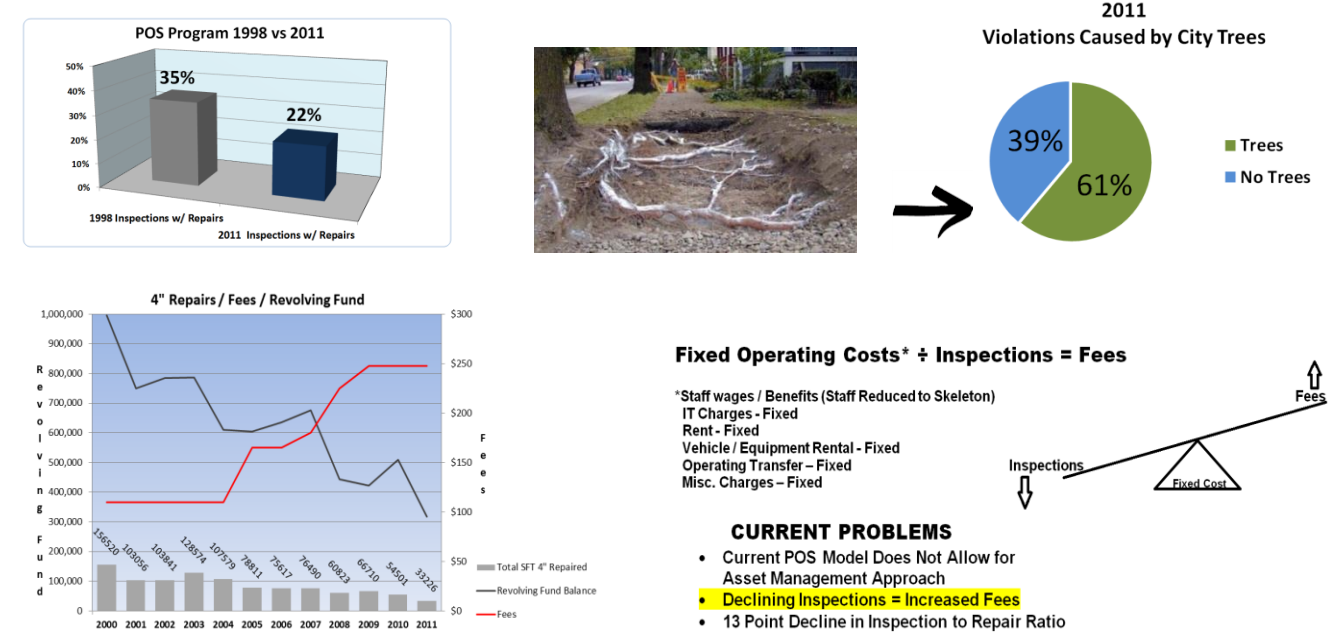
APPENDIX F

Sidewalk Program – A3

Affordable Safe Sidewalks – How to Reduce Inefficiencies and Maintain Sidewalk Assets Background



Current State



Goals/Targets

GT1- Improved Walkability GT2 - Minimized Claims GT3 - Minimize Cost to Citizens

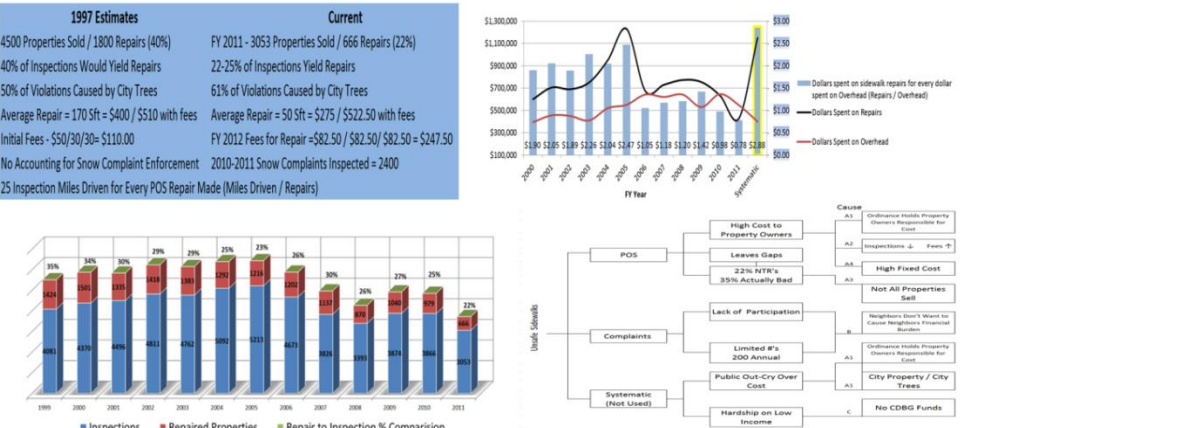
Analysis

Option Comparison				
	Staffing Level (FTE's)	Estimated Revenue	Estimated Sidewalk Repaired (SF)	Fee Cost per 4" Sidewalk Repaired (\$/SF)
Option 1 - POS	4.2	\$446,875	54,000	\$9.23
Option 2 - Complaint /Project	0.6	\$79,750	10,000	\$7.86
Option 3 - Systematic	2.6	\$308,500	80,000	\$5.00
Option 4 - Systematic (SSTF)*	2.5	\$20,000	140,000	\$2.85

* Evaluating repairs only.

SSTF Funding Option			
Construction Sources and Uses Budget*			
Sources		Uses	
Sidewalks Builders License Fee	\$ 2,700	ADA Ramps	\$ 200,000
Snow Complaint Enforcement	\$ 2,000	Sidewalk / Non-motorized Connectivity	\$ 250,000
Sidewalk Permits (50@ \$150.00)	\$ 7,500	Sidewalk Repairs	\$ 700,000
E&I Snow Plowing	\$ 7,800	Inspection / Indirect Cost/ Admin	\$ 400,000
Sidewalks SSTF Fund	\$ 1,605,000	Snow Complaint Inspection	\$ 75,000
Total Sources	\$ 1,625,000	Total Uses	\$ 1,625,000

*SSTF Funding of Sidewalk Repair and Maintenance



Countermeasure Options and Evaluation

Cause	Counter Measure	Description	POS	AM*	Benefit
A1	Change Ordinance	Change Charter to not hold property owners responsible - City maintains (Complete Streets)	Yellow	Green	Lower Cost
A2	Eliminate the POS Program / Alt. Funding	Eliminate or Sunset the POS Program or Develop Another Funding Source (DDA / Act 51 / Forestry)	Yellow	Green	Eliminate High Cost for Repairs
A3	No Counter Measure	No Ability to Control Which Homes Sell	Red	Red	None
A4	City Subsidize Sidewalk Dept. Acquire More CDBG Funds Repair All Walks	City To Subsidize Sidewalk Dept. to Lower Fixed Cost	Yellow	Green	Lower Fees Charged
B		Apply for more CDBG Funds to help low income	Yellow	Yellow	Eliminate Cost to Poor. Avoid Tax Leans
		Repair all walks throughout the City / Fill Missing Gaps	Red	Green	Structured Systematic Approach

* AM – Asset Management Approach Funded by Special Millage

Options

Option 1: Maintain Current POS Program, Complaint and Project Inspection		Option 2: Eliminate POS Program; Maintain Complaint and Project Inspection	
Pros	Cons	Pros	Cons
Non-complaint sidewalks are repaired	Random inspections and repairs create a patch-work network of compliant sidewalk not allowing for a complete street design	Eliminate paperwork and inspections connected with 2800 properties which are issued Compliance Certificates annually	Reduction in amount of annual sidewalk repairs
Automated work-flows & work queuing will decrease Clerical labor related to data entry	High fees required to off-set expense of running program. Property not inspected unless requested (POS, Project, Complaint)	Efficiency gained by not battling snow to inspect sidewalk due to pending closing	Loss of POS fee related subsidy for snow complaint inspection
Citizen/Requestor Transparency on Status of Inspection/Repair when request submitted on-line	Large clerical effort required to process compliancy certificates on 75% of properties that do not require repairs	Reduce Treasurer Department workload related to escrow funds for repairs	Assessment management based inspection plan is not possible
Inspection/Repair expense paid at time of sale allowing sale proceeds to fund repairs of properties with equity if available	Many homes no longer have equity to fund repairs from sale proceeds.	Decrease fees due to reduced staffing and overhead costs	Largest source of revenue is lost

Option 3: Eliminate POS Program; Proposed Systematic Asset Management		Option 4: Eliminate POS Program; Proposed Systematic Asset Management - SSTF Funded	
Pros	Cons	Pros	Cons
Inspect/Repair full network of City sidewalks over a 15 year cycle providing a safer sidewalk network	Additional collection effort may be needed due to increase in 10-pay plans	Inspect/Repair full network of City sidewalks over a 15 year cycle providing a safer sidewalk network	Required Millage or Income Tax for a funding source
Reduce contract price per sidewalk square due to increase in contractor efficiency by consolidating repairs in one area	Fixed/Low income property owners may not be able to afford repair without CDBG funding availability	Reduce contract price per sidewalk square due to increase in contractor efficiency by consolidating repairs in one area	Required change to current City's Charter
Increase Customer Satisfaction by reducing need for POS and payment of 'high fees'	Loss of POS fee related subsidy for snow complaint inspection	Increase Customer Satisfaction by reducing need for POS and payment of 'high fees'	
Reduce carbon emissions by focusing inspections/repairs in cohesive quadrants		Reduce carbon emissions by focusing inspections/repairs in cohesive quadrants	
Provides for an Assessment Management based approach to repair all City sidewalk		Provides for an Assessment Management based approach to repair all City sidewalk	
Reduce Treasurer Department workload related to escrow funds for repairs		Reduce Treasurer Department workload related to escrow funds for repairs	

Recommendation

SSTF- Funded Systematic Asset Management Approach

- Inspect / repair all City sidewalk in a 15 year revolving cycle
- 73 miles of sidewalk inspected annually
- 250% increase in miles of sidewalk repaired annually
- Provides continuous funding for ADA ramp installation
- Provides for sidewalk and non-motorized connectivity improvements

APPENDIX G

References

Master Plan

<http://grcity.us/design-and-development-services/Planning-Department/Pages/Master-Plan.aspx>

Master Plan Update: Green Grand Rapids

<http://mygrcity.us/departments/enterpriseservices/serviceareas/es/public/Documents/GREEN%20Grand%20Rapids%20Master%20Plan%20Update.pdf>

FY11-FY15 Sustainability Plan

<http://grcity.us/enterprise-services/officeofenergyandsustainability/Documents/Sust%20Plan%20as%20amended%206-21-11.pdf>

Transformation Advisors Final Report

<http://wcm.grand-rapids.mi.us/enterprise-services/officeofenergyandsustainability/Sustainable%20Streets/Transformation%20Advisors%20FINAL%20Report%20202-17-11.pdf>

21st Century Infrastructure Task Force Final Report

<http://wcm.grand-rapids.mi.us/enterprise-services/officeofenergyandsustainability/Sustainable%20Streets/FINAL%2021st%20CENTURY%20REPORT.pdf>

Michigan Turnaround Plan

A Five-Step Plan to Transform Michigan's Economy and Create Good Jobs – Business Leaders for Michigan, September 2009

<http://wcm.grand-rapids.mi.us/enterprise-services/officeofenergyandsustainability/Sustainable%20Streets/MichiganTurnaroundPlanFINAL9-9-09.pdf>

MDOT TF2 Report

Transportation Solutions – A Report on Michigan's Transportation Needs and Funding Alternatives, MDOT's Transportation Funding Task Force, 11/10/08

http://wcm.grand-rapids.mi.us/enterprise-services/officeofenergyandsustainability/Sustainable%20Streets/MDOT_TF2_Entire_Report_255609_7.pdf

Complete Streets/Vital Streets

Smart Growth America

<http://www.smartgrowthamerica.org/complete-streets>

Michigan Complete Streets Coalition

<http://michigancompletestreets.wordpress.com/>

MDOT Complete Streets Advisory Council

http://www.michigan.gov/mdot/0,4616,7-151-9623_31969_57564---,00.html

Green Infrastructure

Green Infrastructure Portfolio Standard

<http://grcity.us/enterprise-services/Environment-Services/Pages/Green-Infrastructure-Portfolio.aspx>

The Plainfield Corridor in Creston Business District:

<http://therapidian.org/creston-corridor-use-new-green-technology-reduce-stormwater-pollutionbeautify-neighborhood>

EPA Green Infrastructure:

http://water.epa.gov/infrastructure/greeninfrastructure/gi_what.cfm

Low Impact Development Center:

<http://www.lowimpactdevelopment.org/greenstreets/index.htm>

Cleveland Complete & Green Streets Policy

http://www.cudc.kent.edu/pop_up_city/rockwell/img/Cleveland_Complete_and_Green_Streets_Ordinance.pdf

Portland Green Streets Policy

<http://www.portlandoregon.gov/bes/article/154231>

Milwaukee – Green Streets Policy Underway

<http://city.milwaukee.gov/ManagingYourStormwater/Green-Streets.htm>

EPA Municipal Handbook for Green Streets

http://water.epa.gov/infrastructure/greeninfrastructure/upload/gi_munichandbook_green_streets.pdf

Asset Management

Michigan Transportation Asset Management Council

http://www.mcgi.state.mi.us/MITRP/Council/Default_Council.aspx

Grand Valley Metro Council/Transportation

<http://www.gvmc.org/transportation/index.shtml>

MDOT Asset Management

http://www.michigan.gov/mdot/0,4616,7-151-9621_15757---,00.html

The Institute of Asset Management

<http://theiam.org/>